

CALIFORNIA DEPARTMENT OF SOCIAL SERVICES

Research and Development Division

CalWORKs and Food Stamps Data Systems Design Taskforce

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Overview

The California Department of Social Services oversees the Food Stamp and CalWORKs/TANF programs. The Food Stamp program distributes approximately \$1.7 billionⁱ annually to an average of 678,589ⁱⁱ low income households each month. CalWORKs/TANF expends approximately \$6 billionⁱⁱⁱ annually in cash grants and welfare to work services for an average of 513,162^{iv} families each month. These programs form the primary network of assistance to low income families who cannot meet their basic needs. Programs are operated by County welfare agencies and are supported through a partnership of State and Federal funds. Federal mandates require state's participation in TANF and Food Stamp programs. Receipt of Federal funds supporting programs, and the level of Federal funds provided, and State funds required, to operate programs are dependent on compliance with Federal reporting requirements.

The Taskforce is one entity within the CDSS responsible for capturing and reporting data used to determine the State's compliance with Federal requirements. Failure by California to accurately and/or timely meet Food Stamp or TANF reporting requirements would expose California to substantial dollar sanctions:

- ◆ Failure to meet the TANF work participation rate could result in a progressive sanction equal to 5 percent to 21 percent of the \$3.7 billion TANF Block Grant (approximately \$187 million to \$784 million).
- ◆ In addition, failure to meet the TANF work participation rate immediately results in an increase equal to 5 percent of required maintenance of effort costs for California (approximately \$182 million).
- ◆ Failure to accurately or timely report TANF data could result in a sanction equal to 4 percent^{vi} of the \$3.7 billion TANF Block Grant (approximately \$149 million). vii
- ◆ Failure to accurately or timely report Food Stamp data could result in a sanction equal to the Federal share of administrative costs of the Food Stamp Program (approximately \$342 million for the current State fiscal year).

Accurately capturing and reporting performance data for Food Stamps and CalWORKs/TANF is essential to optimizing the level of Federal funding in these programs. It is also essential in providing accurate information to State policy makers and managers of these programs as they rely on information collected and published by the Taskforce to assess performance of programs and guide policy and funding decisions.

The California Department of Social Services believes that current TANF data reporting requirements will be greatly expanded with reauthorization of the program. For example, TANF reauthorization proposal, HR 4737, expands data reporting requirements to include the following:

- Requires states to take measures to achieve performance
- Requires states to measure annual performance relative to performance goals
- Requires states to prepare annual performance reports updating their progress in achieving numerical goals

• HHS will collaborate with states to identify key measures, build uniform data support and reporting methodologies

New reporting requirements such as those in HR 4737 will require California to expand its data reporting capabilities. The Legislative Analysts Office estimated the additional cost at \$30 million^{ix} over 5 years for HR 4737 data reporting.

Federal requirements and funding for programs have shifted substantially since the 1996 Welfare Reform Act resulting in changes which continue to be modified. These requirements have increased the complexity of programs and the processes to measure them.

The current system used to capture and report program performance data was not originally designed to support the level or complexity of information now required. Without extensive manual intervention, this system could not adequately support efficient and timely collection of accurate data reflecting on the performance of the State's Food Stamp and CalWORKs/TANF programs. Without a major redesign, this system will not allow us to meet future TANF reporting requirements and avoid penalties.

The Taskforce continually adapts the system to better support its needs. Despite adaptations, the system continues to require multiple manual steps that may compromise data integrity and security, and does not readily incorporate changing Federal requirements. Manual transfer of cases has resulted in destruction of confidential data requiring labor intensive restoration of data. Security of client data is not state of the art because of limitations of current system technology. Software updates incorporating new requirements are labor intensive and have not been timely completed creating errors, which must be manually corrected.

Redundant processes required to work around limitations of the current system create additional work for Taskforce staff. This work is necessary to improve accuracy of federally reported data, but it challenges their ability to submit reports within required timeframes. Separate penalties are applied for not meeting report submission timeframes which could cost up to 4% of the TANF grant, approximately \$149 million.

Converting the Taskforce system to a fully web based application that can optimize Internet capabilities would substantially reduce California's exposure to penalties and eliminate many problems and limitations of the system. It would improve flexibility to incorporate changes, reduce opportunities for generation of errors, allow continuous management of the review process, and secure case information throughout the review cycle. Availability of real-time data would be a valuable tool for corrective action and penalty avoidance.

1.0 Business Case

1.1 Business Program Background

The Food Stamp and California Work Opportunity and Responsibility to Kids (CalWORKs)/Temporary Assistance to Needy Families (TANF) programs provide assistance and self sufficiency services to low income households and families.

1.1.1 Food Stamps

The Food Stamp Program provides allotments to low income households for purchase of food. County welfare agencies, under oversight of the California Department of Social Services (CDSS), determine eligibility and allotment for the Food Stamp Program. Federal funds pay the cost of Food Stamps and a combination of Federal (50%), State (35%), and County (15%) funds support administration of the program.

California distributes approximately \$1.7 billion^x in Food Stamps annually to an average monthly caseload of 678,589^{xi} low income households. To assure Federal Food Stamp funds are appropriately spent, the State is required to participate in the Federal Food Stamp Quality Control System (Food Stamp QC). Each month the State must review its Food Stamp eligibility and allotment decisions, assess accuracy of those decisions, and report its findings to the Food Stamp oversight agency, the Department of Agriculture, Food and Nutrition Services (FNS).

From Food Stamp QC reports the FNS calculates the State's eligibility determination error rate as well as the amount of over and under issuance for the month. Each year the FNS determines and publishes the annual error rate for each state and average error rate for all states. States that exceed the national average error rate may be financially penalized, while those with very low or improved error rates may receive bonuses. California is currently in penalty status for over \$100 million for Federal Fiscal Years 2000 and 2001, and may again be for 2002 because the State substantially exceeded the national error rate.

1.1.2 CalWORKs/TANF

The CalWORKs/TANF Program, formerly Aid to Families with Dependent Children (AFDC), provides cash grants and welfare-to-work services to families whose incomes are not adequate to meet basic needs. California County welfare agencies operate the CalWORKs/TANF Program. Agencies process applications, determine eligibility and benefit levels for qualified families, and establish a plan of required activities to transition families to work and economic independence.

California expends \$6 billion^{xii} annually in cash grants and welfare-to-work services for an average monthly caseload of 513,162 families. These expenditures are Federal TANF grant and State funding. A minimum State expenditure, called Maintenance of Effort (MOE), is required to qualify for the TANF Grant. A State MOE contribution equal to 75% of what the State contributed to the former AFDC program in 1995, \$2.7 billion, is required if CalWORKs/TANF Program participants achieve the targeted Work Participation Rate (WPR) established by Federal law for the year. If the CalWORKs/TANF program fails to achieve the targeted WPR the State must increase its annual funding to a minimum of 80% of its contribution to the AFDC Program in 1995, a cost of approximately \$182 million. Therefore, accuracy is critical to ensure all hours of participation are captured.

The annual CalWORKs/TANF WPR, and associated State funding MOE requirement, is determined from case level data reported to the Federal TANF oversight agency, the Department of Health and Human Services, Administration for Children and Families (ACF). Federally required CalWORKs/TANF participant level data, including hours engaged in work activities, must be reported to ACF in quarterly reports. ACF calculates the CalWORKs/TANF WPR from submitted reports. Additionally, ACF extracts TANF participant characteristic information from these reports to assess state and national program trends.

1.1.3 CalWORKs and Food Stamps Data Systems Design Taskforce

California County welfare agencies operate Food Stamp and CalWORKs/TANF programs. However, the CDSS is responsible for the Food Stamp QC system and TANF Disaggregated Data Reporting process that captures and reports critical performance information about these programs to Federal oversight agencies. Within the CDSS Research and Development Division (RADD), the CalWORKs and Food Stamps Data Systems Design Taskforce (Taskforce) is the entity responsible for centralization, coordination, and management of the Food Stamp QC system and TANF disaggregated data reporting.

To carry out its program review and reporting responsibilities, the Taskforce selects a sample of cases from Food Stamp and CalWORKs/TANF programs each month and oversees a comprehensive review of those cases. Detailed case data is collected and recorded, eligibility and benefit decisions are reviewed and assessed, and case information is compiled in federally specified report formats and submitted to the responsible Federal oversight agency. Additionally, the Taskforce captures data collected through reviews to support program analysis and report development activities.

The Taskforce coordinates nineteen agencies and approximately 160 Case Reviewers to conduct monthly case reviews. Eighteen counties operate agencies to perform reviews in their county. The CDSS Los Angeles Field Operations Bureau (FOB) conducts case reviews for Los Angeles County and the 39 smallest counties. Eighteen counties, called Performance Measurement Counties (PMC), and the FOB are collectively referred to as Case Review Agencies (Agencies) in this report.

Figure 3.1 shows the organizational structure of the Taskforce, its three component units, the System Maintenance Unit (SMU), Data Transmission and Validation Unit (DTVU), and Trend Analysis Unit (TAU), and Case Review Agencies.

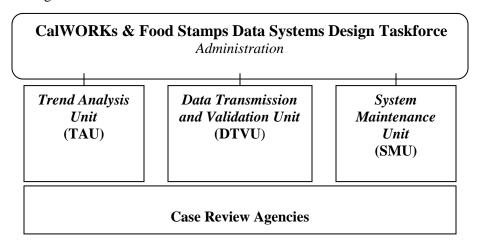


Figure 3.1 - Taskforce's Case Review Organizational Structure

1.1.4 Food Stamp Quality Control System

California issues an average of \$141 million^{xiii} worth of Federal Food Stamps to 678,589 low income households each month. Additionally, an average of 109,491^{xiv} households are denied eligibility for Food Stamps, or have benefits suspended or terminated each month. The Taskforce operates the Food Stamp Quality Control system that determines accuracy of eligibility decisions, measures correctness of Federal funds allotted, and reports its findings to the FNS.

Food Stamp QC case reviews are lengthy and complex. Case Reviewers locate, transfer, construct, verify, and record over three hundred data elements in completing a review. They must accurately apply an extensive body of program rules to make appropriate decisions and correct calculations. To promote accuracy, Case Reviewers and the review process is assisted by an automated application. This application structures case review tasks, formats needed responses, performs required calculations, coordinates contingent responses, and edits allowable entries and decisions. A separate and program specific version of the

application is available to support Food Stamp QC and CalWORKs/TANF case reviews. The application is customized and maintained for the Taskforce by a vendor.

The *average* number of Food Stamp households reported in each monthly Federal Food Stamp QC Report is 78 households receiving Food Stamp benefits and 56 cases denied benefits. Of 678,589 households receiving Food Stamps, 78 households, or .0001 percent, are reviewed and reported in the Food Stamp QC Report and of 109,491 cases denied benefits, 56 households, or .0004 percent, are reviewed and reported in the Food Stamp QC Report. California's annual Food Stamp issuance error rate is determined from a sample of .0001 percent of recipients. The "Negative Error Rate", which are cases that are incorrectly denied Food Stamp benefits, are determined from a sample of .0005 percent of applicants denied Food Stamps. Therefore, accuracy of data is critical, because error rates are calculated from a small sample of the total population caseload.

In addition to Federal Food Stamp QC reviews, the Taskforce selects and Case Review Agencies complete a comprehensive review of an additional 390 Food Stamp recipient cases each month. Reviews are conducted to adequately measure performance of each County operated Food Stamp Program and proportionately assess the contribution of each County to any federally determined Food Stamp error rate and associated Federal opportunity or penalty.

1.1.5 CalWORKs/TANF Data Reporting

California expends an average of \$416 million dollars providing cash assistance and welfare-to-work services to an average of 513,162 low income families participating in CalWORKs/TANF programs each month. Of those families, an *average* of 49,217^{xv} have two parents in the household while the remaining 463,496^{xvi} have a single head of household present in the family. The Taskforce operates federally required case level data collection and reporting processes used to determine characteristics of families and measure the work activity level of families with two parents (Two Parent) and families with a single head of household (TANF).

The Taskforce selects a representative sample of Two Parent and TANF families each month and coordinates a comprehensive review of sampled family cases. Family cases are assigned to Case Review Agencies in the same manner as Food Stamp QC cases and the same review processing cycle employed for Food Stamp QC case reviews is applied to family cases. Content of Two Parent and TANF reviews is somewhat different with focus being on collection and verification of federally specified information about the family and level of work activities. Capture and reporting of information is supported with a version of the Case Review Application specific to TANF and Two Parent review requirements.

The Taskforce collects completed case reviews and compiles data in the federally required report format. TANF cases are reported quarterly and annually as required by ACF. The SSP-MOE Report is not used to calculate the State's WPR, but must be submitted to qualify for certain Federal financial bonuses and caseload reduction credit. Failure to accurately or timely report TANF data could result in a sanction equal to 4 percent^{xvii} of the \$3.7 billion TANF Block Grant (approximately \$149 million). xviii

An *average* of 254 families are reviewed and included in each monthly TANF Disaggregated Data Report and an *average* of 253 families are included in each monthly SSP-MOE Data Report. Of 463,946 TANF families receiving cash assistance and welfare-to-work services, 254 families, or .0005 percent, are represented in the TANF Disaggregated Data Report. Of 49,217 Two Parent families receiving benefits, 253 households, or .005 percent, are represented in the SSP-MOE Data Report. California's annual CalWORKs/TANF WPR is calculated from .001percent sample of TANF families represented in the Disaggregated Data Report submitted by the Taskforce.

1.1.6 Changes in Food Stamp QC and CalWORKs/TANF Data Reporting Processes

The CDSS current case review system has been in existence for many years. Complexity of reviews and their financial importance to the State increased dramatically with implementation of the 1996 Federal Welfare Reform Act. Assessment reviews for such assistance programs focused on appropriate application of eligibility rules and accurate determination of assistance grants.

Federal "Welfare Reform" initiatives replaced AFDC with time limited TANF welfare to work program, significantly modified eligibility requirements for public assistance programs, and imposed heightened levels of accountability on states. Modifying the Case Review Application to collect and report data on the newly formed CalWORKs/TANF welfare to work program and increasingly complex Food Stamp program presented substantial challenges. Continual changes in Federal laws and regulations controlling these programs, performance based program funding, and increased financial accountability for accurate and timely reports on performance of these programs compounded challenges to the State's case review system.

To address these challenges, the CDSS adapted its original case review system and created a new Case Review Application. The automated application contained case review and reporting capabilities. By the late 1990's, the CDSS recognized the new application could not adequately support expanded demands on the case review and reporting process.

The CDSS formed the Taskforce and charged it to streamline and improve the case review process. The Taskforce revamped the Case Review Application to a web browser system. The new Case Review Application was to reflect the Internet potential of the revised system and desire of the Taskforce to capture its capabilities. The Case Review Application is installed as an end user application on individual workstations throughout Case Review Agencies and Taskforce offices. While the modified tool has some internet coding, it is not an internet application.

In an environment of complex and ever changing Food Stamp and CalWORKs/TANF rules, the Case Review Application is critical to effectiveness of the case review system. The Taskforce depends on the system to move case reviews to and from Case Review Agencies, structure the review process to comply with current eligibility, grant allotment and program assessment requirements, and manage flow of federally required monthly reporting responsibilities. The Taskforce has worked diligently to improve the case review system and effectiveness of the Case Review Application in supporting that process. They have implemented extensive manual processes, added layers of review, performed multiple and continual program revisions, and dedicated extensive effort modifying the Case Review Application to improve accuracy of data that is finally submitted to Federal agencies.

Without extensive manual intervention, the current Case Review Application would not adequately support approximately 20,676 comprehensive reviews performed annually by Case Review Agencies.

1.2 Business Problem or Opportunity

1.2.1 Problem 1: Accuracy

The current Case Review Application does not reliably provide decisions and findings. Case review accuracy is central to the core purpose of the Taskforce. Data collected through the case review process and reported to Federal oversight agencies is used to assess the State's compliance with Food Stamp and CalWORKs/TANF program requirements and determine funding opportunities or sanctions. Federal financial sanctions for report accuracy violations may be applied. Specific issues affecting accuracy include:

- ◆ To catch errors Taskforce staff run a batch program prior to submission of reports to Federal oversight agencies and fix errors prior to submission.
- ◆ The Case Review Application does not maintain a central or single copy of the selected review case data file, instead it passes around many files, allowing numerous opportunities for error, loss or corruption, and requiring significant manual reconciliation processes to help ensure accuracy.

- ◆ The Case Review Application was not originally designed to perform complex data edits. Such edits are now required in order to meet Federal requirements for data accuracy. Furthermore, devised edits do not always perform correctly resulting in undetected errors and manual intervention for correction.
- ◆ Federal oversight agencies continue to find errors in data submitted by the Taskforce. Errors are corrected after initial submission to Federal agencies, and then resubmitted. This entails a labor intensive reassessment of cases and often requires contact with Case Review Agencies.

1.2.2 Problem 2: Efficiency

The case review and reporting process is not efficient. Multiple manual steps, duplicated activities, and lack of continuous oversight increase resources and time required to complete case reviews. Specific issues affecting efficiency include:

- ◆ Because sample files contain only minimal data elements, Case Reviewer's must locate and manually enter case information. The Case Review Application must validate data entered. As a result, the Case Review Application replicates logic in the originating SAWS (Statewide Automated Welfare System) Consortia eligibility system.
- ◆ The current system separates and distributes cases from the monthly sample. Individual files are created for each Agency and manually moved, via modem, to a Store and Forward File Repository (Repository). It is a secure file location operated by the Taskforce vendor. After the Taskforce has placed cases in the Repository, it notifies each Agency by email and relies on Agency employees to retrieve cases and initiate reviews timely. Once cases are retrieved from the Repository, via modem, Case Reviewers perform reviews and upload completed reviews back to the Repository. Taskforce staff receive automated emails reporting return of completed cases via the Repository. Most Case Review Agencies upload close to the end of the period, leaving few days for the Taskforce to consolidate, validate, edit, correct, and transmit to Federal oversight agencies. The Taskforce has no visibility into progress made by Case Review Agencies during the reporting period until cases appear in the Repository.
- ♦ The Taskforce does not have control over cases once data is moved to Case Review Agencies. Consequently, the Taskforce must rely on data backup and data security measures in force at local Agencies and out-stationed State office.
- ◆ Editing of completed cases is duplicated at Case Review Agency and Taskforce levels to detect errors allowed, because different versions of the Case Review Application are installed at each level, and the most updated version is maintained by the Taskforce.
- ◆ The Taskforce is routinely requested (estimate 300 requests per year) to produce ad hoc reports from data by decision makers, stakeholders, and other entities. Producing reports with the current system is time consuming, complex, and labor intensive.
- ◆ Undetected errors are identified by Federal oversight agencies edit processes and returned to the Taskforce for correction.
- ◆ The current system does not meet the CDSS ISO security standards, due specifically to use of PC Anywhere and Personal Web Server. The Taskforce has a temporary security exemption by the CDSS Information Security Officer to operate the current system. However, this exemption could be revoked should a security breach occur, such as confidential data being compromised.

1.2.3 Problem 3: Flexibility

The Case Review Application is not flexible and readily adaptable to change. Continually shifting program rules require frequent and timely change. Failure to incorporate Federal changes in the case review process by the effective date results in case review errors, whose correction requires manual intervention. Specific issues affecting flexibility include:

- ◆ An average of three new versions of the Case Review Application are sent yearly to approximately 160 users. Distributing new application versions causes several problems including:
 - Some Agencies do not have staff readily available to install software which delays implementation of new versions and can lead to undetected errors.
 - Staff frequently have installation problems due to the variety of operating systems, such as Windows 98, 2000, NT, and XP, different types of hardware, varying browser versions, network environments, and lack of support staff with technology skills required by the Case Review Application.
 - Taskforce staff and the vendor spend considerable time assisting counties in troubleshooting installation problems.

System modifications are increasingly complex and time consuming due to:

- ◆ The accumulation of edits necessary to implement improvements and regulatory changes. The current system is comprised of the Case Review Application, Case Report Application, plus multiple manual and semi automated processes which are not easily upgradeable.
- Taskforce staff invest significant time performing analysis, design, and testing of new versions. To help speed up Case Review Application beta testing, the Taskforce sends staff for several days to the vendor's site. This is costly, due to travel expenses, and pulls Taskforce staff away from other responsibilities.
- Despite increasing levels of effort by State staff, as well as the vendor, new Case Review Application versions are seldom delivered timely. During the last two years, due to a variety of problems, all new versions have been delivered late. Furthermore, all major versions of the application have required subsequent "patch" versions to fix problems in major releases.

1.2.4 Problem 4: Timeliness

Timely completion of monthly reviews and submission of federally required reports is compromised by fragmented oversight, additional edits, and correction of detected errors caused by running of multiple versions of the Case Review Application. Financial penalties may be assessed for failure to meet required Federal reporting timeframes. Specific issues affecting timeliness include:

- ◆ Each new version delivery results in a period where different versions are running at Agency and Taskforce levels, which results in the Taskforce editing reviews before submission and correcting identified errors. This process must be completed in a short timeframe as most reviews are not completed and made available to the Taskforce until close to the end of the reporting period. To date, the Taskforce has not missed a reporting deadline, but it has taken an infusion of resources by both State staff and the vendor to meet deadlines in a compressed timeframe. Failure to accurately or timely report TANF data could result in a sanction equal to 4 percent^{xix} of the \$3.7 billion TANF Block Grant (approximately \$149 million).^{xx} Failure to accurately or timely report Food Stamp data could result in a sanction equal to the Federal share of administrative costs of the Food Stamp Program^{xxi} (approximately \$342 million for the current State fiscal year).
- Reviewers perform reviews and upload completed reviews to the Repository. Taskforce staff receive automated emails reporting return of completed cases to the Repository. Most Case Review Agencies upload close to end of the period, leaving few days for the Taskforce to consolidate, validate, and transmit cases to Federal oversight agencies. The Taskforce has no visibility into progress made by Case Review Agencies during the reporting period until cases appear in the Repository.

1.3 Business Objectives

This section lists business objectives cross referenced to the four problems described in the previous section.

#	Objective	Problem 1 Accuracy	Problem 2 Efficiency	Problem 3 Flexibility	Problem 4 Timeliness	Measurable Objective	Metric
1	Complete all case reviews at Agency level	X	X			Meet existing performance objectives – all cases will be completed by Case Review Agencies	Pass/Fail
2	Be accurate in capture and reporting of data	X				Reduce amount of cases returned by Federal oversight agencies for correction	Approx. 1430 cases returned for FFY 01/02. Expect to reduce returned cases by 70% by Q4 FFY 04/05.
3	Develop an audit trail of all changes to file with date, time, and user	X	X			Tracking system implemented	Pass/Fail
4	Control flow of case review progress, completion and submission activities to optimize distribution of work activities across time and in relation to report submission timeframes		X		X	Case flow tracking system implemented	Pass/Fail
Ŋ	Reduce time required to design and deploy software updates and versions		X	X	×	Reduction in time required for designing, testing, and issuing postimplementation updates and versions	An average of 3 new versions are issued annually (§ 3.2.3, p.18). An average of 45 days is required per version, including time to design, test and issue. Expect to reduce that time by 50% by Q4 FFY 04/05.
9	Meet oversight agency reporting timelines			X	X	Federal penalties avoided	Pass/Fail
7	Reduce overtime for staff to meet reporting time frames		X			Reduction in overtime	Spent \$7021 in SFY 01/02. Expect to reduce overtime expenditures by 50% by Q1 SFY 05/06.

#	Objective	Problem 1 Accuracy	Problem 2 Efficiency	Problem 3 Flexibility	Problem 4 Timeliness	Measurable Objective	Metric
∞	Avoid Federal penalties for inaccurate reporting for Food Stamps and TANF/CalWORKs	X	×	×	×	Federal penalties avoided	Pass/Fail
6	Assure continued correctness of Food Stamp QC eligibility, allotment determinations, and TANF data collection	X		X		Federal penalties avoided	Pass/Fail
10	With real-time data, provide information that is more current to County Welfare Offices on the success of their corrective action efforts.	Х	X	×	X	Reduce number of days until data is available for reports and corrective action	County Welfare Offices must wait for the Case Review Agencies to distribute error reports. The objective is to allow limited access to County Welfare Offices to run error reports at their discretion. This objective is pass/fail.
11	Reduce or eliminate hours spent on transmitting data	X	X			Reduce number of tasks being completed manually - Reduce length of time needed to transmit	An average of 9.25 hours and 10 manual steps are required each month for data transmissions. Expect to reduce to 2 hours and 3 manual steps after implementation phase.
12	Reduce or eliminate hours spent fixing errors by Taskforce staff		X	X		Reduce number of hours needed to fix errors	Used over 1 PY in 2001 for fixing over 6,700 errors. Expect to reduce that workload by 70% by Q2 FFY 05/06.
13	Reduce number of software patches released to correct system errors		X	X	X	Reduce patches released per new version	Issued 4 patches in FFY 01/02. Expect to reduce that by 50% by Q4 FFY 04/05.
14	Reduce time from identification of a change to making the change available at the Case Reviewer level		X	X		Reduce length of time to implement system changes	An average of 7 days is required to implement a system change. Expect to reduce that time by 60% by Q3 FFY 04/05.
15	Reduce time spent preparing, verifying, and reconciling yearly closeout totals		×	×	×	Automate documentation of daily, weekly, monthly, yearly totals	Food Stamp year-end reconciliation spans approx. 3 months. Though most of this time is covered by federal timelines, approx. 2 weeks is needed to manually prepare, verify, and reconcile initial figures. Expect to reduce that by 25% by Q1 FFY 05-06.

#	Objective	Problem 1 Accuracy	Problem 2 Efficiency	Problem 3 Flexibility	Problem 4 Timeliness	Measurable Objective	Metric
16	Increase percentage of changes that can be made to the system without software modifications through configuration and/or data updates		X	X	X	System Administration Interface, including edit logic modification package, implemented	Currently, all changes, including edit logic, field mapping, and user account administration require software modification. Expect to be able to perform 80% of all such changes after implementation.
17	Increase security of data to be compliant with CDSS and DOF TOSU security policies	X	X			System security approved by the CDSS ISO and DOF TOSU	Pass/Fail
18	Increase ability to recover from a disaster	×	X		X	Automated data backups	The Taskforce and its vendor require approx. 3 days to recover functionally from a disaster and approx. 2 weeks to fully recover. Expect to be able to fully recover from a disaster in 2 days by end of implementation phase.
19	Decrease time spent per report for production of ad hoc reports		X	X	X	Reduce manual file manipulation by directly accessing data entered in the system	An average of 4 hours is required to complete each ad hoc request. Expect to reduce that time by 50% by Q1 FFY 05/06.
20	Increase the ability to quickly identify errors and causes	X	X	X	X	Real time data, increased reporting capabilities	Implementation of central database and Crystal Reports engine. Pass/Fail
21	Provide visibility into case review progress at any time to allow consistent and ongoing management and tracking to better balance workload	×	X	Х	X	Real time data	Pass/Fail
22	Increase performance of software application		×		×	Reduce number of manual tasks - Reduce length of time needed to prepare and transmit	Approx. 45 manual steps in current system. Expect to reduce that by 40% after implementation.

1.4 Business Functional Requirements

The table below lists business and technical requirements for the system. Business requirements focus on essential characteristics the proposed solution must incorporate to satisfy business objectives. Business requirements were initially developed by reviewing current business process flows (detailed in Appendix B) and identifying essential characteristics of these processes. This table categorizes requirements by process supported and maps them to system component, which is used for estimating cost in section 5.

#	Requirement	Process/ Category	Component	Business Objective
1.	Provide automated workflow reminders to initiate monthly quality control process.	QC OC	Case Review Guidance and Workflow	4
2.	Receive sample file (known as "Skeleton File") created by the Trend Analysis unit. The sample file is received as an electronic "flat file". These include files currently imported from SAS.	ÓC	Interfaces	11
3.	Allow Agency staff to access sample file cases using the Case Review Application.	ÓC OC	Case Review Guidance and Workflow	1, 4, 11
4	Allow Agency staff to acknowledge receipt of new sample cases.	OC OC	Case Review Guidance and Workflow	4
5.	Allow Agency supervisors to assign cases to Case Reviewers.	ÓC	Case Assignment	4
.9	Provide workflow to guide Case Reviewers through each step of the review.	OC OC	Case Review Guidance and Workflow	1,4
7.	Perform edits and provide prompts to ensure Case Reviewer enters all mandatory data elements.	ÓC	Case Review Edits	1, 2, 9
8.	Provide edits to validate correctness of data entered by Case Reviewer.	ÓC	Case Review Edits	1, 2, 9
9.	Capture an audit trail of all changes performed during the case review.	ÓC	Case Review History and Audit trail	3
10.	Record all numeric, currency amounts, and codes as discrete database elements rather than textual notes.	ÓC OC	Case Review History and Audit Trail	1,2
11.	. Ensure review meets State and Federal regulations.	QC	Case Review Edits	1, 6, 8
12.	Prompt Case Reviewer with reminders of case review timeframes.	ОС	Case Review Guidance and Workflow	4, 6, 7
13.	Provide supervisors with case review status information for all cases within their Agency. Automatically provide alerts to supervisor of imminent case review timeframes.	óc	Case Review Guidance and Workflow	4, 6, 7
14.	. Provide Taskforce staff with case review status for all Case Review Agencies. Automatically provide alerts to Taskforce staff of imminent case review timeframes.	óc	Case Review Monitoring	4, 6, 7, 21
15.	Record all events (decisions, actions, observations, contacts, visits) made by Case Reviewer as part of review. Record date and time with all events.	ÓC OC	Case Review History and Audit Trail	3, 10

#	Requirement	Process/ Category	Component	Business Objective
16.	Allow Case Reviewer to attach comments on overall case and on specific items. Record date and time of all comments.	OC .	Case Review History and Audit Trail	3, 10
17.	Track cases that are dropped during case review.	бс	Case Review History and Audit Trail	3
18.	. Provide automated reminders for dropped case timeframes to Case Reviewers, supervisors, and Taskforce staff.	OC.	Case Review Guidance and Workflow	4, 6, 7
.19.	. Automatically initiate and track workflow events for additional sample cases to replace dropped case.	OC.	Case Review Guidance and Workflow	4, 6, 7
20.	Track sufficient case data (characteristic), case review data, and case review audit trail data to allow accurate reporting.	ე ბ	Case Review History and Audit Trail, Reports	2, 8, 9, 15, 18
21.	Export case review sample data for transmission to Federal oversight agencies. Transmit sample cases to Federal oversight agencies in federally specified format.	óс	Interfaces	8,11
22.	. Receive, store, and track errors returned from Federal oversight agencies.	oc oc	Interfaces, Case Review Guidance and Workflow	20
23.	Provide workflow and reminders to facilitate timely correction of errors received from Federal oversight agencies by Taskforce and/or Case Review Agencies.	о с	Case Review Guidance and Workflow	4,8
24.	Track sufficient case review data and audit trail data to help identify causes of errors received from Federal oversight agencies. Allow corrective action to be taken. Track corrective action as part of case review audit trail.	ÓC	Case Review Guidance and Workflow, Reports	3, 10, 12, 15
25.	Generate and distribute cumulative performance reports (on key indicators) to State and County stakeholders. Include cumulative error rate and work participation rate.	ÓC	Reports	15, 19
26.	Provide ability to define and add new edits and functionality to the application in advance of required regulation implementation.	Software Application Development	Case Review Edits	5
27.	Maintain software application design documentation that facilitates adding functionality to the application.	Software Application Development	Documentation and Project Management	5
28.	Provide online help to assist Case Reviewers.	Software Application Development	Case Review Guidance and Workflow	1, 9, 10
29.	Provide an application interface that is intuitive and will minimize time spent training Case Reviewers.	Software Application Development	User interface	12, 22

#	Requirement	Process/ Category	Component	Business Objective
30.	. Provide ability to easily produce ad hoc reports.	Administration and Information Management	Reports	19
31.	. Provide standardized reports that can be easily customized to meet new reporting requirements.	Administration and Information Management	Reports	15, 19
32.	Provide ability to monitor performance of the QC process on an ongoing basis with sufficient time and information to take corrective action and meet timelines.	Administration and Information Management	Case Review Monitoring	10
33.	. Provide ability to adapt processes/policies/procedures and software to meet new regulations/guidance within timeframes.	Administration and Information Management	Case Review Edits	5, 14, 16
34.	System design must provide flexibility and adaptability to support the Taskforce's changing business requirements and processes as required by legislation or CDSS management.	Infrastructure	Architectural	14, 16, 19
35.		Infrastructure	Architectural	17
36.		Infrastructure	Architectural	5
37.	. Leverage new technologies to simplify processes, increase efficiency/effectiveness, improve productivity, control costs, and minimize the number of steps and manual interventions.	Infrastructure	Architectural	5, 14, 18, 22
38.	. Utilize a centralized database and avoid data duplication.	Infrastructure	Architectural	11, 17, 18
39.	Provide an audit trail of all database changes (inserts, updates, deletes). This audit trail will provide at a minimum, name of user making a change, data field that was changed, previous value, and date and time of change.	Infrastructure	Architectural	3, 20
40.	Track sufficient data for identification of error trends and training needs.	Infrastructure	Architectural	3, 10, 20
41.		Infrastructure	Architectural	14, 17
42.	Case Review Application must not directly access data on the legacy source systems.	Infrastructure	Interfaces	17
43.	. Easily adapt to interface with new systems and new interface data formats. (For example, interfaces with the SAWS eligibility systems may be required in the future)	Infrastructure	Interfaces	14, 16

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#	Requirement	Process/ Category	Component	Business Objective
44.	Provide a batch program that will perform edits on all cases, or selected groups of cases, and produce error report information similar to the current batch program. The batch program should perform the same edits as those performed by the online Case Review Application.	Infrastructure	Case Review Edits	1,2
45.	User interface must be completely web based and work with Internet Explorer version 5.5 and later versions.	Infrastructure	User Interface	13, 14
46.	Screen sizes must adjust to the resolution of current browser screen settings.	Infrastructure	User Interface	22
47.	User interface must be ADA and Federal Section 508 compliant	Infrastructure	User Interface	22
48.	. User interface screens must perform standard edits based on type of data including calendar date verification to help ensure only valid data is entered.	Infrastructure	User Interface	1,8
49.		Infrastructure	User Interface	1, 2, 8
50.	All software products must meet the CDSS Information Systems Division (ISD) software standards.	Infrastructure	Software	17, 18
51.	All software must be Microsoft compatible and the application must utilize Microsoft Active Server pages (preferably ASP.NET) and Microsoft SQL Server. Software components developed in the Java programming language are not acceptable.	Infrastructure	Software	14, 17, 18
52.	Application test scripts must be developed using Microsoft Application Test Center. All test scripts will be delivered to the CDSS and be owned by the CDSS.	Infrastructure	Software	13
53.	Custom source code must be documented in compliance with ISD standards.	Infrastructure	Software	17, 18
54.	Software development environment management and administration tools and applications must be consistent with a Windows 2000 server environment.	Infrastructure	Software	17, 18
55.		Infrastructure	Connectivity	11, 7, 18
56.		Infrastructure	Connectivity	11
57.	 Must support a minimum of 200 users without noticeable performance degradation including peak periods that occur towards the end of a review period. 	Infrastructure	Performance	21, 22
58.	Case review edit process must edit at least one case per second on the server (excluding transmission time across the Internet).	Infrastructure	Performance	22
59.	Must provide for online, real time access to the database and processes by all users while simultaneously supporting batch processing. Batch processing includes a batch program, and standard and ad hoc reports.	Infrastructure	Performance	22
.09	Recommended solution must meet the CDSS information security standards.	Infrastructure	Security	17

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#	Kequirement	Process/ Category	Component	Business Objective
61.	Under normal circumstances, database and application security will restrict adding or updating data in the database to those users that control data. All other applications or queries will be restricted to viewing data only. The only exception is that corrections can be made to the database by qualified users when a data error is generated by the application, and the data error cannot be corrected from within the application.	Infrastructure	Security	17, 18
62.	The application must utilize 128 bit secure socket layer (SSL) encryption for all data transmission because case review data contains confidential data elements such as social security numbers.	Infrastructure	Security	17
63.	. Any data files transmitted must be encrypted with a minimum Triple DES type encryption.	Infrastructure	Security	17
.49		Infrastructure	Security	17
.65	All software development documentation and any other project documents that have information security implications must be provided to the CDSS Information Security Officer (ISO) for review.	Infrastructure	Security	17
.99		Infrastructure	Data	18
29	. Must provide easy to use ad hoc reporting tool.	Infrastructure	Reports	19
.89	. CDSS staff and/or Taskforce staff will perform system management and maintenance.	Operations	System Administration	14, 18
.69	Administrative functions including users and group maintenance, application coding and report design, and direct support to users handled must be able to be handled remotely by CDSS staff.	Operations	System Administration	14, 18
70.	Database backups must be performed daily. Offsite backups must be maintained monthly. Backups of each new application version must be maintained. Regular tests of backups must be performed. At least three copies of backups must be maintained.	Operations	Backup and Recovery	18
71.	. All tools and software (including commercial off-the-shelf software products) provided as part of the system must be documented and documentation must be provided to the Taskforce.	Project Management	Documentation and Project Management	13, 17, 18
72.	. Technical training must be provided to allow Taskforce staff to use and maintain the application solution.	Project Management	Training	13, 17, 18, 20
73.	. User training and training materials must be provided to Taskforce staff to allow them to train other users (i.e. utilize a "Train the trainers" approach).	Project Management	Training	20
74.	State and County users, Taskforce staff, and the CDSS ISD staff will participate in phases of the software development process and will provide feedback on design documentation. ISD staff will participate in architectural review sessions, oneoing code reviews and will provide feedback.	Project Management	Documentation and Project Management	13, 17, 18
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#	# Requirement	Process/	Component	Business Objective
75.	75. All design documents will be placed under configuration control and will be	Project	Documentation and	16, 17, 18
	traced back to initial business requirements.	ent	Project Management	
.92	76. Technical documentation must conform to ISD standards.	Project	Documentation and	13, 17
		Management	Project Management	
77.	77. Proposed technical implementation must be approved by the CDSS ISD.	Project	Documentation and	13, 17
		Management	Project Management	

2.0 Baseline Analysis

2.1 Current Method

Quality Review and Reporting Program

The relationship between County welfare agencies, the Taskforce, and Federal oversight agencies are shown in Figure 4.1

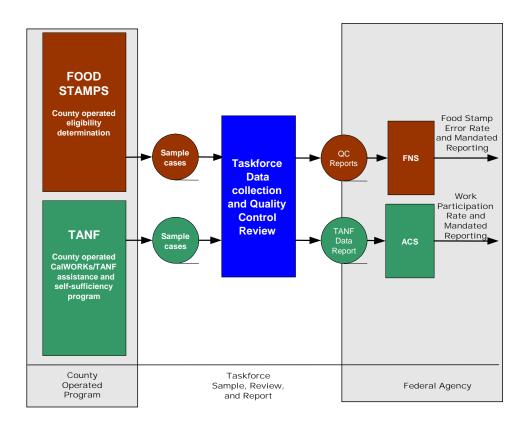


Figure 4.1 - Program Overview

Food Stamps Quality Control Review - Detail

The Taskforce identifies a sample of Food Stamp recipient household cases each month for review. Predetermined sampling parameters are applied to County Food Stamp payroll files to select and identify cases for monthly review. Identifying information on each selected household case is extracted from payroll files and placed into a "Skeleton File". The Skeleton file contains minimal identifying information about the household case to be reviewed. Skeleton file information is used to determine the Agency assigned the Food Stamp QC review and allow assigned Case Reviewer's to uniquely identify the Food Stamp household. Case Review Agencies are operated in 18 PMC and by the FOB for Los Angeles County and the remaining thirty nine smallest counties. Cases assigned to each Agency are made available to that Agency on a monthly basis. Agencies are notified via email that monthly Food Stamp review cases are available from the Taskforce. The list of review cases assigned and case Skeleton files are made available through the Repository.

Case Review Supervisors or Managers within the Agency are responsible for assigning each case for review to a Case Reviewer and making the Skeleton file in the Repository available. Assigned Case Reviewer's download the Skeleton Files to their workstations and begin a detailed review of the Food Stamp household.

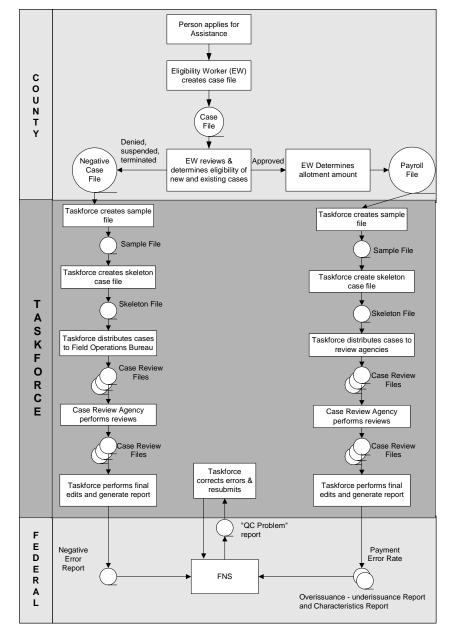
The Case Reviewer locates, collects, records, and verifies information required to determine the household's eligibility for Food Stamps and amount of allotment they qualify to receive. The case review is conducted by applying Food Stamp program regulations. A face to face contact with the household is required. The Case Reviewer compares his or her findings against those made by the County eligibility worker who made the eligibility and allotment determination for the household. Variances found by Quality Control Reviewer's are noted and reported. Variances resulting in a different eligibility determination or an allotment difference of greater than \$25 are noted and reported as an error. An allotment error greater than \$25 requires Case Reviewer's to calculate differences between issued allotment amounts, correct amounts, and report amounts of over-issuance or under-issuance.

The Case Review Application provides a review report form consisting of data entry screens, defined elements, response menus, codes for entering information, coordination of contingent information, decision fields, and calculations. It assists Case Reviewer's through the review process, includes warning and fatal edits to prevent errors, and assures completeness of required elements. In addition, it provides access to regulations, guidelines, definitions, and other information.

The Case Reviewer completes the review and submits the case to the Agency Supervisor or Manager. Cases must pass all fatal edits before submission. The Agency Supervisor/Manager reviews completed cases and makes it available to the Taskforce by uploading it to the Repository. The Taskforce collects completed case reviews and submits them through an additional edit process. The Taskforce edit process may include edits not included in the Case Reviewer's version, as the Taskforce frequently has updated versions that have not yet been installed at Case Reviewers workstations.

The Taskforce organizes the monthly statewide Food Stamp QC reviews, maps reviews onto the Federal Food Stamp QC report format, and electronically transmits it to FNS. Review cases with federally detected errors are returned to the Taskforce for correction. The Taskforce and Case Review Agencies makes corrections and resubmits the review report. The Taskforce must submit to the FNS 100% of required case sample reviews within 95 days of the last day of the sample month.

A similar review process is conducted monthly for Food Stamp Negative actions (i.e., denials, terminations, or suspensions). Negative Food Stamp QC reviews use the same overall workflow as described above, but apply a portion of the Case Review Application specific to reviewing and reporting federally required information for Negative cases. The sample of Negative Food Stamp cases is drawn from County denied, suspended, or terminated files. Skeleton files are constructed and forwarded, via the Repository, to Agencies. Reviews are conducted by FOB case review staff. The primary focus of Negative reviews is to determine accuracy of the denial, termination or suspension action, and collect characteristic information.



An overview of the Food Stamp QC process is shown in Figure 4.2

Figure 4.2 - Food Stamp Issuance and Quality Control Review Process Flow

TANF/CalWORKs Review

The Taskforce conducts reviews of the TANF/CalWORKs program. Samples are drawn and reviews of TANF family cases and SSP-MOE Two-Parent Family cases receiving assistance, and family cases no longer receiving assistance are conducted using predetermined sampling parameters. Stratified samples of TANF and Two-Parent families are drawn from the State's MediCal Eligibility Data System (MEDS). Identifying information for each family case is extracted and placed into a Skeleton file. Skeleton files for each sample are distributed to the responsible Agency. The case distribution and review process, tasks and workflows are the same as those described for the Food Stamp QC review. The Case Reviewer conducts the review with a portion of the Case Review Application specific to review of TANF families and Two Parent families reporting case characteristics, resources, work participation hours, and information required by the Federal oversight agency.

Completed cases are reviewed by the Agency Case Supervisor or Manager, and returned to the Taskforce via the Repository. The Taskforce uses the Case Review Application to transfer TANF Family review data onto the Federal TANF Disaggregated Data Report for submission to ACF. Reports must be submitted within 45 days of the last day of the quarter. TANF Disaggregated Data Reports are subject to time and accuracy requirements. Penalties are attached to reports that are not submitted within 45 days of the end of the quarter or, failing that, the last day of the succeeding quarter. Two Parent Family reviews are translated onto the Federal SSP-MOE Disaggregated Data Report. These reports are not used in calculating the State's TANF Work Participation Rate and may be submitted quarterly or at the time the State wishes to qualify for a TANF high performance bonus or qualify for caseload reduction credit.

Figure 4.3 shows a high level flow for the TANF/CalWORKs program and the federally specified reporting process.

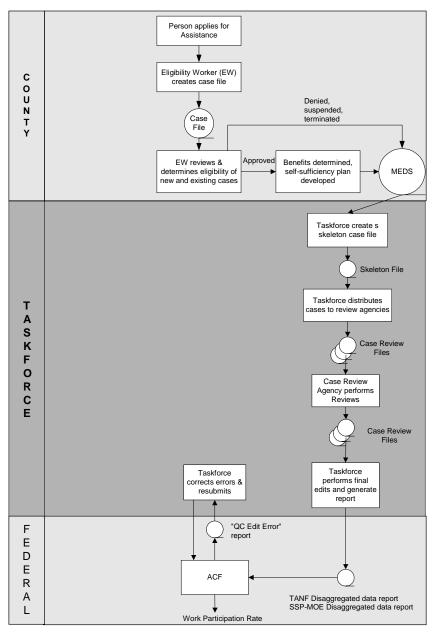


Figure 4.3 - TANF Process Flow

2.2 Technical Environment

2.2.1 Existing Infrastructure

Figure 4.4 shows the Current Technical Architecture including the Taskforce, the Health and Human Services Data Center (HHSDC) Mainframe, the CDSS Information System, LEADER, the Case Review Agencies, and the System Support Vendor (Repository).

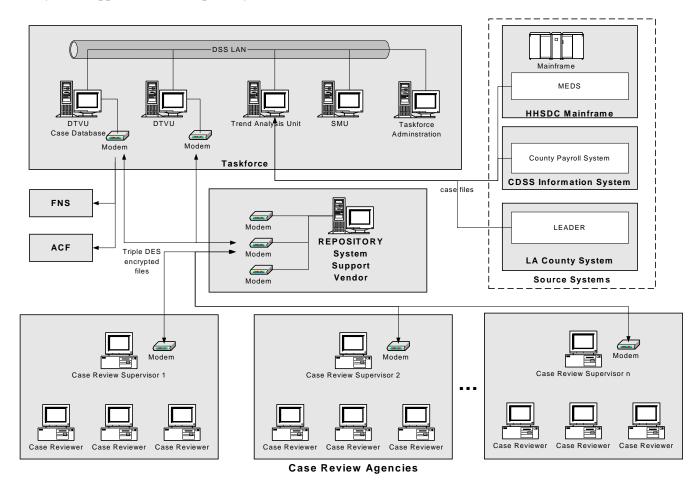


Figure 4.4 - Current Technical Architecture

Main components of the current technical architecture are:

- Taskforce PC workstations are located at Sacramento, Fresno, and Los Angeles Taskforce offices and are used by the Data Transmission and Validation Unit (DTVU), System Maintenance Unit (SMU), Trend Analysis Unit (TAU), and Taskforce Administration. Workstations are connected to the CDSS Local Area Network (LAN). Taskforce case review data is not stored on a LAN server, but is stored on individual Taskforce PC workstations. This configuration was adopted to ensure security of case review data. The Trend Analysis Unit samples Food Stamp and TANF/CalWORKs cases, and then produce Skeleton Files. Skeleton Files are transferred to DTVU, where data is sorted and transmitted to the Agencies via the Repository. DTVU collects completed reviews from Agencies, via the Repository and merges data into the consolidated case database.
- **Source Systems** The Taskforce receives data from several data sources:
 - MEDS located on the HHSDC's Mainframe, transmits TANF/CalWORKs data to the Taskforce.

- LEADER runs Los Angeles County Food Stamp applications and transmits sample data to the Taskforce.
- **CDSS Information System** transmits Food Stamp data to the Taskforce.
- The Repository uses a combination of file server folder structures and dialup modems. Dialup modems are used to transmit cases to and from the Repository at each step of the data transmission process between the Taskforce and Case Review Agencies.
- Agency workstations are used by Case Review Supervisors and Reviewers to perform case reviews.
 The Taskforce initially provided minimum requirements for workstation hardware and configuration,
 but does not own these workstations and does not have direct control over their configurations. SMU
 staff provide technical support for the Case Review Application, which involves troubleshooting
 technical issues related to workstation software configuration.
- FNS and ACF are the Federal oversight agencies that receive data from the Taskforce.

2.2.1.1 Current Software Architecture

Software applications currently used by Taskforce staff are:

- Case Review Application
- Case Report Application
- Batch Program Case Review Edit Program
- Standard and Ad Hoc reports

Figure 4.5 shows layers of software within the current architecture. Custom application programs are shown in darker shading. This software architecture is installed on approximately 160 Agency workstations.

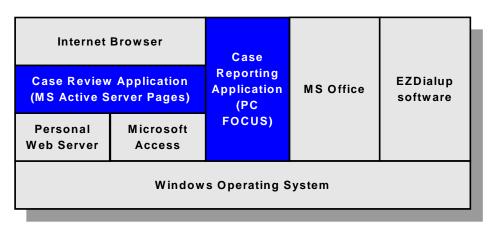


Figure 4.5 - Current Workstation Software Architecture

2.2.1.2 Security

Current application security includes authentication with username and password. The Case Review Application and Case Report Application require users to enter their username and password. Users enter their username and password again when they transmit cases via EZDialup software to the Repository. The Case Review Application uses Triple DES Encryption to encrypt data files before transmission.

The current system does not meet the CDSS ISO standards, specifically due to use of PC Anywhere and Personal Web Server. The Taskforce has been granted a temporary security exemption by the CDSS ISO to operate the current system. However, this exemption could be revoked should a security breach occur, such as confidential data being compromised.

2.2.1.3 Case Review Application

Agencies use the Case Review Application to perform Food Stamp Quality Control reviews and TANF/CalWORKs data collection. The Case Review Application was developed and is maintained by the current vendor. The Case Review Application is a web application developed using Microsoft Active Server Pages (ASP) with data stored in Microsoft Access and Microsoft SQL Server.

Although the Case Review Application is a web application, it is deployed as a client application on 160 Case Reviewer workstations. Installing the Case Review Application requires workstations to run Personal Web Server software to provide web server services. The Case Review Application is deployed as a web server application executable with supporting Dynamic Link Libraries (DLLs). Each workstation plays two roles, as a web server running the Case Review Application, and a client workstation providing browser access to the application.

Case Review Application functionality includes:

- Data entry
- Extensive data edits (approximately 600 for Food Stamps and TANF/CalWORKs combined)
- Case review management and workflow
- Data file transfer
- Online help

2.2.1.4 Case Report Application

The Case Report Application produces reports/files used by the Taskforce and Case Review Agencies. The primary user of the Case Report Application is the Taskforce, which uses the Case Report Application to generate reports for a range of stakeholders. Agency staff use the Case Report Application to run error rate reports and several other reports.

Generated reports/files include (this is a partial list):

- Rolling Error Rate for Food Stamps
- Data Transmission File for the Trend Analysis Unit, from which the following are created:
 - TANF Active Upload File
 - TANF Closed Upload File
 - MOE-SSP Active Upload File
 - MOE-SSP Closed Upload File
- TANF Unwed Information for the Data Systems and Design Bureau
- TANF Active Case Information on Non Drops for the Research Unit
- "ISB" file for the Trend Analysis Unit

The Case Report Application is a legacy PC application developed in PC FOCUS programming language. A previous version of the Case Review Application was developed entirely in PC FOCUS. The Case Review Application containing all case review screens and edits was recreated using newer technology, however, reports were not migrated to the newer technology.

The Case Report and Review Applications are separate applications, as such, users must manually export data from the Case Review Application and into the Case Report Application before running reports. If a user runs the report application without first exporting data from the review application, reports will use old data that is not synchronized.

2.2.1.5 Other Standard and Ad hoc Reports

In addition to reports generated by the Case Report Application, the Taskforce produces other standard and ad hoc reports developed in a combination of MS Excel, MS Access, and Visual Basic. Case Review Agencies use menu driven reports for corrective actions.

2.2.1.6 Batch Program

The batch program is a component of the Case Review Application that is run at various points during the case review process, including:

- By Case Reviewers after completing case reviews
- By Case Review Supervisors after all case reviews for a period are complete
- By DTVU before sending data to Federal oversight agencies. DTVU runs the batch program against
 a MS SQL Server 7.0 database stored on one desktop workstation at the CDSS, which contains all
 case reviews.
- By Taskforce staff after error reports are returned from Federal oversight agencies

Due to delays in distribution of software updates, DTVU often utilizes a newer version of the batch program than the Case Review Agencies. Consequently, when DTVU runs a newer version, errors are often detected that were missed by older versions run by the Agencies. In 2001, Taskforce staff corrected 6,271 TANF and Food Stamp cases with multiple errors caught by DTVU's newer version. DTVU utilizes a newer version because of the length of time it takes to load software on approximately 160 Agency workstations. To help ensure accuracy is maintained at all times, DTVU must continue to run the batch program and correct errors found.

2.2.1.7 Current Data Architecture

Figure 4.6 shows the current data architecture, which involves splitting, and distributing case data to designated Case Review Agencies and merging collected data back into a single database. At any given time, cases within the case database are distributed across multiple computer systems and locations across the State.

As shown in Figure 4.6 Case Review data files are transmitted from:

- 1. Taskforce to Agency Supervisor
- 2. Agency Supervisor to Case Reviewer
- 3. Case Reviewer back to Agency Supervisor
- 4. Agency Supervisor to Taskforce

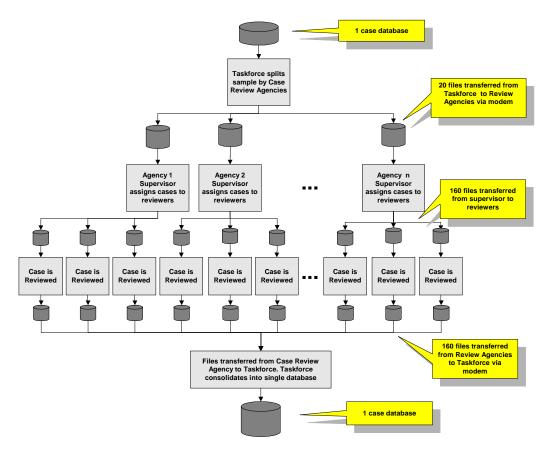


Figure 4.6 – Current Data Architecture

Each of these four transmission phases is a two step process. Step 1 involves the sender connecting via modem to the Repository and uploading files. Step 2 involves the receiver connecting via modem to the Repository and downloading files. A case is transmitted a minimum of eight times within each review cycle. In addition to data transfer, emails are sent from sender to receiver as notification that there is a file awaiting download. *All* of the approximately 1,700 cases per month are transmitted in this manner. In addition to transmitting cases via modem, cases are also moved using email, floppy disks, and Jaz tapes.

The current data architecture poses multiple problems and risks. Security and confidentiality of data, such as social security numbers, are concerns as data moves from the Taskforce to the Agency and back again. The Taskforce does not have direct control over hardware security and software security on the vendor's server or on approximately 160 Agency workstations and laptops. Occasionally, files are destroyed and must be recreated during transmission between the Taskforce and Case Review Agencies.

Data elements imported from source systems to Skeleton Files are a small subset of data elements required by Federal oversight agencies. Consequently, Case Reviewers must gather and enter many data elements in addition to performing actual case quality control review activities. The current application does not provide an adequate audit trail of changes made to data elements.

3.0 Proposed Solution

3.1 Solution Description

The proposed solution is to design, build, and implement a new Quality Control and Data Report system running as a web application on a web server and database server at the HHSDC. The solution will be fully web based utilizing a centralized SQL Server database. Users will have access to the application on the web server, but will not have direct access to the database.

The solution will automate and integrate all process steps from receiving sample skeleton files, through submitting files/reports to Federal oversight agencies. This includes case review functionality currently provided by the Case Review Application, plus many additional steps performed outside of the Case Review Application by Taskforce staff.

Taskforce objectives to accurately, efficiently, and timely complete case reviews for Food Stamp QC and CalWORKs/TANF Data Reporting responsibilities will be met through implementation of a web based Case Review Application that is flexible and adaptable to changes in Federal requirements and problems identified with application structure. Additionally, collection and application of data generated through the case review process will be accurate and readily applied to construct standard and ad hoc reports.

The solution will improve accuracy of information collected and reported. Opportunities for corruption of data and errors created by separation, distribution, and reintegration of case files in review/report cycles will be eliminated. Manual steps associated with moving case files between the Taskforce and Case Reviewer's will be eliminated and the number of manual steps will be reduced. Implementation of a fully web based application will eliminate duplicate edit and error correction steps created by running different versions of the Case Review Application at the Agency and Taskforce levels. It will allow for central maintenance of case files, improved tracking and management of case review steps, and sustain security. Timely implementation of revised versions of the review application will improve by eliminating deployment and implementation on 160 Case Reviewer personal computers without requiring any modifications or upgrades to those environments. Most critically, accuracy will improve by eliminating generation of undetected errors at the Agency level and the need to edit and correct errors at the Taskforce level. Timely completion and compilation of case reviews into Federal reports and submission of reports to Federal oversight agencies within required timeframes will be allowed without need for additional staff intervention.

The solution provides a web based application comprised of application components listed below. The components map to the business functional requirements and also meets infrastructure, operational, and project management requirements as listed in Section 3.4 and summarized below.

3.1.1 Application Components

The proposed software application solution includes the following components:

- Case Assignment component will provide web pages and supporting functionality to allow Agency Supervisors to assign work to Case Reviewers.
- Case Review Guidance and Workflow component will provide data input, update, and retrieval web pages to support each step of the review. Timeframe reminders for reviewers, supervisors, and Taskforce staff will also be provided. Online help will be provided to assist Case Reviewers through the case review process.
- Case Review Monitoring will provide web pages and supporting functionality to allow status of all
 case reviews, groups of case reviews, and individual case reviews to be tracked throughout the review
 cycle by all users with appropriate security privileges.
- Case Review Edits component will provide logic to implement business edits, data type edits, and other edits to verify correctness of case review data. Has flexibility to easily add new edits.
- Case Review History and Audit Trail component will provide web pages and supporting functionality to track entire case review histories and audit trail of all data changes.

- Interfaces component will provide functionality to import data from source systems (e.g. MEDS, County Payroll, LEADER) and export data to destination systems (Federal oversight agencies and other State and County systems). Will leverage a flexible design to easily adapt to changes in interface formats and to interfacing with new systems (e.g. SAWS).
- **Reports** component will provide a combination of standard and ad hoc reports. Standard reports will be interactive to allow sorting, filtering, drilling, and other common report viewing techniques by end users.
- **System Administration** component will provide web pages and supporting functionality to allow CDSS staff to administer and operate the system including defining security roles and authorization.

Infrastructure Requirements

In addition to application component requirements, Section 3.4 groups requirements into infrastructure categories summarized below. Functionality to meet these requirements within these categories will be built into the proposed solution during design phase of the project.

- **Architectural** requirements focus on ensuring:
 - The application is designed and constructed to be adaptable and scalable to facilitate future enhancements
 - Data duplication is avoided
 - The solution is browser based
 - The design complies with appropriate State and CDSS department standards
- **Connectivity** requirements specify the application will run on servers at the HHSDC and be accessed via the Internet.
- **Security** requirements specify security measures commensurate with sensitivity of confidential case review data.
- **Data** requirements specify how long data must be retained and how data must be structured and stored.
- **Performance** requirements specify acceptable performance for the application.
- **User Interface** requirements to ensure the user interface is correctly designed, will function with the standard browser, and is ADA compliant.
- **Software** requirements ensure the application is developed with tools in compliance with CDSS standards.
- Backup and Recovery requirements specify how these functions must be performed.
- **Documentation and Project Management** requirements to ensure sufficient documentation are developed by the vendor as part of the project to allow the CDSS to maintain and enhance the system.
- **Training** requirements to ensure necessary training is provided by the vendor as part of the project.

3.1.2 Hardware

Figure 5.1 shows the planned technical architecture including the Taskforce, Source Systems, HHSDC Mainframe, HHSDC Servers, and Case Review Agencies. The core of the new system is a web based software application and relational database running on a web/application server and database server at the HHSDC. The new web server and database server, which will be leased from the HHSDC, are the only new hardware components required. All other hardware components of the architecture remain the same as those

used by the current system. Because the new system will be web based, it will no longer be a requirement of 160 existing users to install the application at their workstations. In addition, the Repository used in the current system will no longer be necessary. The solution will not require any new user workstations or communication devices. Users will have access to the application on the web server and will not have direct access to the database. Appropriate security measures will be taken for the web services located in the DMZ.

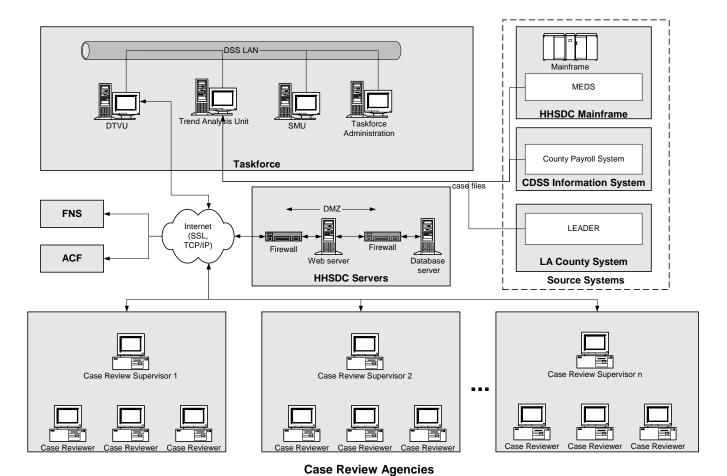


Figure 5.1 - Proposed Technical Architecture

3.1.2.1 Server Specifications

The web server specifications are:

Compaq Model DL380R03, including

- 2 Xeon 2.8 GHz Processors
- 512KB Cache
- 2 GB Memory
- 6 18.2 GB Drives
- Redundant Power, Fan, NIC
- Microsoft Windows Advanced Server 2000
- Trend Antivirus
- BMC Patrol Agent
- Veritas Backup Executive

Database server specifications are:

Compaq Model ML530R02, including

- 2 Xeon 2.4 GHz Processors
- 1MB Cache
- 4 GB Memory
- 6 18.2 GB Drives
- 6 36.4 GB Drives
- Redundant Power, Fan, NIC
- Microsoft Windows Advanced Server 2000
- Trend Antivirus
- BMC Patrol Agent
- Veritas Backup Executive

3.1.3 Software

3.1.3.1 Server Software

The solution requires the following software on the web and database server:

- Microsoft Windows 2000 Advanced Server will be the server operating system on the web server
 and the database server. This software will be leased from the HHSDC as part of the web server and
 database server packages.
- **Microsoft SQL Server version 7 or 2000** will store the centralized case review database. This product will be leased from the HHSDC as part of the database server package.
- **Microsoft Active Server Pages (ASP) or ASP.Net** will be used to develop the new application. This product will be leased from the HHSDC as part of the web server package.
- **Microsoft Internet Information Server (IIS) version 5.0** will provide web server services to support the new application. This product will be leased from the HHSDC as part of the web server package.
- Seagate Crystal Decisions Enterprise Edition will provide the run time environment for reports developed with Crystal Reports allowing reports to be accessed over the internet with a browser without software being installed on user's workstations. This product will be purchased by the CDSS and installed on the web server at the HHSDC.

3.1.3.2 Workstation Software

User workstations will use standard Microsoft Internet Explorer (IE), version 5.5 or later, and will require no additional software. Internet Explorer is chosen as the required browser standard to eliminate software development and maintenance costs associated with developing software for multiple browsers.

All workstations already use IE 5.5 because the Case Review Application Personal Web Server requires it. Users with workstations not currently using IE 5.5 can download and install it free of charge from Microsoft's website.

3.1.4 Technical Platform

The technical platform includes Intel based servers running Microsoft Windows 2000 Advanced Server, with a custom application developed using Microsoft ASP or ASP.Net. All communications from user workstations to the web server will use 128 bit Secure Sockets Layer (SSL) point-to-point encryption.

The proposed solution is consistent with the CDSS Information Technology Standards as well as the CDSS ISD technical areas of expertise.

3.1.5 Development Approach

The system will be developed by contract staff with participation by the CDSS. The Taskforce and ISD will be involved throughout the project to review deliverables and receive knowledge transfer. The project will follow an industry standard structured development approach with the following phases:

- Requirements Analysis
- System Design
- Software Construction
- Data Conversion
- System Testing
- User Acceptance Testing
- Implementation

Taskforce staff will:

- Participate in the requirements analysis phase to provide and validate data requirements.
- Participate in the data conversion phase because of their knowledge of current data structures and content.
- Participate, review, and signoff on all testing phases (unit, integration, system, and user acceptance testing).
- Participate in the implementation phase to provide training to users.

The technology platform is consistent with CDSS standards. The CDSS has certified staff that will ensure correct standards and methodologies are used in accordance with State guidelines.

3.1.6 Integration Issues

As shown in Figure 5.1 above, the solution will integrate with the same systems as the current system. The Taskforce will retain responsibility for successful integration with the following systems:

- **Source Systems** The Taskforce Trend Analysis Unit receives a portion of the required data from several data sources:
 - MEDS is located on the HHSDC Mainframe and transmits TANF/CalWORKs data to the Taskforce.
 - LEADER runs Los Angeles County Food Stamp applications and transmits sample data to the Taskforce.
 - **CDSS Information System** transmits Food Stamp data to the Taskforce.
- **FNS** and **ACF** are the Federal oversight agencies receiving data from the Taskforce.

3.1.7 Procurement Approach

The CDSS preference is to develop and issue an RFP to implement a MSA contract for software development services. The technical skills (Microsoft ASP, SQL Server, and Crystal Reports) required for this contract are widely available from vendors under MSA. This process will be initiated upon approval of this FSR and must be completed by December 2003. See Appendix D for the Information technology Procurement Plan.

Statements of Work will be developed and issued for the Project Management services and Project Oversight services under CMAS.

The new web server and database server will be leased from the HHSDC.

The CDSS ISD Staff Programmer Analyst (a redirected position for this project which will require freeze exemption approval from the DOF) will provide technical guidance during the procurement process to help ensure the most qualified vendors are selected.

3.1.8 Technical Interfaces

As described in Section 5.1.6 the proposed solution will use the same interfaces as the current system. In addition, the proposed solution will be designed to provide flexibility to adapt easily to receive data from different systems (e.g. SAWS Consortia) and new Federal formats in the future.

3.1.9 Testing Plan

This project will follow an industry standard testing methodology, which includes conducting multiple testing phases to ensure accuracy, completeness, and robustness of the system. Within this approach, the vendor team is responsible for unit integration, system and user acceptance testing phases, including all test planning, scripting, execution, and evaluation of results.

3.1.9.1 Unit and Integration Testing

As part of the software construction phase the vendor's technical team will unit test each of the system components. Unit testing is defined as verification of accuracy and completeness of individual processes, programs, and procedures making up the system. Vendor staff will develop documented test scripts using Microsoft Application Test Center (a component of Visual Studio) to guide unit and integration testing. As system components are developed, the vendor's technical team will perform integration testing by verifying groups of components together. The Taskforce will approve each module unit test and integration test. The CDSS ISD will review selected unit testing activities to ensure CDSS standards are met.

3.1.9.2 System Testing Phase

System testing will be conducted by the vendor as a separate project phase to verify the system works correctly as a complete system, including all external interface processes. System testing will include performance testing to verify the system will meet performance requirements. Testing will include verification security requirements are met. Vendor staff will develop documented test scripts to guide system testing. These scripts will be reused by Taskforce staff for subsequent versions of the system. The CDSS ISD will review test plans and system testing activities to ensure CDSS standards are met. The Taskforce will review and approve final test scripts.

3.1.9.3 User Acceptance Testing Phase

User acceptance testing will be lead by Taskforce staff that will perform their normal daily tasks and activities in an environment closely matching production. Vendor staff will develop documented test scripts to guide acceptance testing. These scripts will be reusable by Taskforce staff for subsequent versions of the system. User acceptance testing is helpful in identifying problems that occur when the system is used differently than documented in the specifications. The Taskforce will review and approve final test scripts.

3.1.10 Resource Requirements

The project will use a software development vendor to design, develop, and implement the new system. This vendor will also be responsible for training as described in section 5.1.11. CDSS staff will participate in the project as shown in the table below. A Project Oversight vendor will be contracted to provide guidance and independent review on project management, direction, and risk, and will report directly to the Project Sponsor

(with concurrent copies of the report going to the Project Manager). An existing CDSS position will be redirected to allow the ISD to add a Staff Programmer Analyst (SPA) for this project. Prior to start of the project, the SPA will provide technical guidance during selection of Software Development, Project Management, and Project Oversight vendors to help ensure that sufficiently qualified vendors are selected. The SPA will participate in all phases of the project. After the project is completed, the SPA will be responsible for maintaining the application.

CDSS Staff/Role	Project Responsibilities	Ongoing Responsibilities
DTVU Manager and	Provide input to requirements, validate	Same as current responsibilities
Analysts	requirements, and participate and review all	including System Administration
	testing phases (unit, integration, system, and	and Operations. Perform Crystal
SSM I	user acceptance). Provide input to data	Reports development in response
1 - AISA	conversion design. Review, approval, and	to requests for additional standard
2 – AGPA's	signoff of project deliverables.	reports and ad hoc reports.
SMU Manager and	Provide input to Case Review Application	Same as current responsibilities
Analysts	requirements, validate requirements, and	including user training.
	participate and review all testing phases (unit,	
SSM I	integration, system, and user acceptance), and	
5 AGPA's	training. Review, approve, and signoff	
	project deliverables.	
Trend Analysis	Provide input to reporting and statistical	Same as current responsibilities.
Manager, Analysts,	analysis requirements, validate requirements,	
and Statistical	develop user acceptance test scripts and	
Research staff	reports, and perform user acceptance testing.	
CCLA	Review, approve, and signoff project	
SSM I	deliverables.	
1 RPS II		
2 RPS Is		
4 RA II's		B 6
ISD	Prior to project start, participate in selection	Perform system maintenance and
CDA (D. II)	of Software Development, Project	future software version
SPA – (Redirected	Management, and Project Oversight vendors.	development on the system.
Position)	During project, participate in review,	
	approval, and signoff of project deliverables.	
	ISD will participate in system design reviews	
	and code reviews.	

3.1.11 Training Plan

The project will include three types of training:

- 1) **User Training** will be accomplished using a train-the-trainer approach where vendor staff trains Taskforce SMU staff who will train users. As part of this training program vendor staff will develop reusable training materials. SMU staff will then use these materials to train approximately 160 users.
- 2) **System Administration and Operation Training** will be provided to Taskforce staff by vendor staff as part of the implementation phase.
- 3) **Technical Training** for ISD staff and Taskforce technical staff will be provided by the vendor to prepare staff to support and enhance the application.

3.1.12 Ongoing Maintenance

Taskforce staff will provide ongoing operations, administration, and configuration for the new system. Once the project is complete and the first version of the system is moved to production, subsequent maintenance and modifications will be completed by ISD staff. This will be achievable because the new system will be developed using technologies in compliance with CDSS standards and which Taskforce technical staff and ISD staff have experience.

Production maintenance tasks will continue on the existing system throughout the development project. Following approval of the FSR and development of a detailed project plan, the Taskforce will only proceed

with emergency enhancements. This limitation of system enhancements will free up sufficient Taskforce staff to allow them to participate in the project.

3.1.13 Information Security

The application will be entirely browser based and utilize server side components eliminating the need to install software on user workstations. The web server and database server will be located at the HHSDC and will utilize the HHSDC's security infrastructure. All data communication between user workstations and the web server will be encrypted with Secure Sockets Layer (SSL) 128 bit encryption. If it is necessary to transmit cases within the system, cases will be protected with Triple DES encryption which meets Federal requirements for transmission of confidential data.

Users will authenticate to the system with username and password. Taskforce System Administrators will define and implement appropriate levels of application security and data access to the system. Such determinations must be compliant with CDSS and the Department of Finance, Technology Oversight and Security Unit, security policies and requirements. Users, groups, and roles will be established prior to system development and reevaluated during and after development.

3.1.14 Confidentiality

Security measures described in section 5.1.13 are specified to help ensure confidentiality of case review data. Confidentiality will be required from all vendors and CDSS staff involved in the project. Vendor contracts will include security requirements and confidentiality agreements.

3.1.15 Impact on End Users

This solution is designed to improve and enhance current business functions to make Taskforce and Agency users more efficient and effective. Impact to end users will generally be in the following areas:

- Elimination of cumbersome store and forward data transmission
- Elimination of software application installation
- Real-time data reporting will be more useful and flexible
- Faster turnaround on system change requests and enhancements
- Reduction in number of workaround tasks performed outside of the system

To increase acceptance of the new system and to help with training, end users will be involved in planning and testing of the new system.

3.1.16 Impact on Existing System

The new system will replace the existing system. New system scope includes necessary existing case review system functionality, plus many functions currently performed manually or outside the main system.

Only emergency changes will be made to the existing system while implementation of the proposed solution is occurring. This will allow Taskforce staff to participate in the project. Case review data from the current database will be converted into the new database. This is necessary to support reporting, trend analysis, and identify causes of issues identified in Federal error reports.

3.1.17 Consistency with Overall Strategies

The proposed project is consistent with the CDSS AIMS document. Specifically, the proposed project aligns with the Research and Development Division (RADD) business program objectives as follows:

- Evaluate programs and analyze data to provide information for policy decision making
- Provide research consultation for the Department's programs
- Maintain and enhance data collection and reporting systems
- Publish and present findings from research and data analyses
- Provide updates on implementation of the Department's Strategic Plan

The proposed project is consistent with the Case Review Application Web Project described in section 7.2, page 56, of the AIMS document.

The proposed project is consistent with the CDSS 2002 Strategic Plan and executes identified Performance Objectives within that plan. The Taskforce, as an entity within the Research and Development Division of the CDSS was charged to achieve the following Performance Objectives in the Division's Master Business Plan implementing the 2002 CDSS Strategic Plan:

- CDSS Goal #3: Self sufficient adults and families
 - RADD Goal #4: Collect, analyze and disseminate timely information on welfare families to guide policy decisions.
 - <u>Taskforce Performance Objective #1</u>: Prepare, publish, and present information on those using our CalWORKs and Food Stamp programs.
 - <u>Taskforce Performance Objective #2</u>: Ensure the accurate and timely collection of data to meet State and Federal requirements.
 - Taskforce Performance Objective #3: Measure the accuracy of Food Stamp Benefits.
- <u>CDSS Goals #1 through #5</u>: Safety and permanence for vulnerable children, safe living environment for vulnerable adults through engaged and productive staff.
 - ♦ RADD Goal #6: Build Division communication capacity and efficiency.
 - <u>Taskforce Performance Objective #3</u>: Web enable the Case Review Application survey instrument.

This project was identified as an objective in the CDSS 2002 comprehensive Strategic Plan and assigned a 2002 target date. As such, this project is an integral part of the Taskforce's long range plan and the strategic objectives of the CDSS and Research and Development Division.

3.1.18 Impact on Current Infrastructure

The proposed solution will require additional hardware and software as described in sections 5.1.2 and 5.1.3. Costs for additional infrastructure are included in Section 8 project costs.

3.1.19 Impact on Data Center(s)

As described in section 5.1.2.1, one new web server and one new database server will be installed at the HHSDC.

3.1.20 Data Center Consolidation

The proposed solution is consistent with the State's data center consolidation requirements.

3.1.21 Backup and Operational Recovery

Backup and recovery procedures are consistent with CDSS and HHSDC policies. Database backups will be performed daily. Archive tapes will be cycled to an offsite facility monthly and maintained in a secure manner. Archives of each new application version will be maintained. Regular tests of backups will be performed. At least three copies of archive tapes will be maintained. Backups will be performed by HHSDC staff as part of the package that the CDSS will lease from the HHSDC.

3.1.22 Public Access

The system will not be available for public access.

3.1.23 Benefits

Key benefits of the proposed solution are:

- One centralized Case Database The current architecture has up to 160 separate case databases distributed among nineteen Case Review Agencies. The planned architecture employs a single centralized case database eliminating all data transmission steps and need for the Repository. Storing the database at the HHSDC increases data security (HHSDC servers are configured with firewalls, DMZ, and other appropriate security measures), and allows appropriate backups and other maintenance processes to be performed. Security and backup requirements are defined in the next section. Specific benefits related to a solution with a centralized database include:
 - Microsoft Access databases on each user workstation are no longer required
 - Improved security and confidentiality because case review data is not stored on user workstations
 - Modem communication software is not required (unless the workstation is connected to the internet using a dialup connection)
- One centralized Case Review Application The current architecture has approximately 160 separate copies of the application. The planned technical architecture ensures all users are running the same version of the application and eliminates distribution of software. Specific benefits related to a solution with a centralized application include:
 - Custom application software is not required on end user workstations.
 - Personal Web Server (PWS) and PCAnywhere software will no longer be required on end
 user workstations. This eliminates the current security issue identified by the CDSS
 Information Security Officer associated with having PWS installed on end user workstations.
 - Agencies can upgrade to newer operating systems and browsers without waiting for the Case Review Application to be modified for compatibility.
 - Easier maintenance and elimination of software distribution to end user workstations.

3.2 Rationale for Selection

This alternative was selected as the proposed solution because it addresses all business problems, meets business objectives, and satisfies business functional requirements with little risk and at reasonable cost. The greatest cost/benefit ratio is achieved with this alternative. The solution utilizes a centralized database, which eliminates numerous data transmission steps and related risks, and utilizes a centralized web application, which eliminates the need to distribute software to Case Review Agencies.

Alternative 2 fully meets business objectives and resolves problems, but will cost over 5 times as much. Alternative 3 has lower initial costs, but satisfies fewer objectives, resolves fewer problems, and costs more over 5 years.

3.3 Other Alternatives Considered

This section describes six alternatives, which were considered, but not selected. The first four alternatives were dismissed because they are not viable solutions.

3.3.1 Describing Alternatives

3.3.1.1 Dismissed Alternative 1 - Implement Free Federal Oversight Agency Software Applications

The Taskforce considered utilizing free software applications provided by Federal oversight agencies for case review and reporting. During research, this alternative was dismissed because it would not meet the Taskforce's business objectives as follows:

- Lack of Accuracy FNS and ACF applications accept incorrect and mistyped information. This could lead to submission of erroneous data, performing additional work to correct erroneous data, and/or being subject to penalties due to inaccurate reports. Much of the work on the current system is done to put edits in place that prevent errors.
- Lack of Timeliness FNS and ACF applications require more time to enter data resulting in higher costs for data entry and increased potential of missing deadlines.
- Lack of Efficiency- New software components would have to be designed, developed, and implemented to collect, consolidate, and translate data from Case Review Agencies to allow the Taskforce to transmit data to ACF and FNS; and perform its oversight, reporting, and trend analysis functions.

Taskforces business objectives are better met by the current system than by Federal applications. As such, this alternative was dismissed.

3.3.1.2 Dismissed Alternative 2 – Buy an Off the Shelf Product

The Taskforce researched and evaluated two off the shelf products used by other States, including:

- FACTORS/SA Case Management Peter Martin Associates.
- CaseTracker Case management solution for Health Case and Social Service Organizations.

These products were evaluated earlier by the Taskforce and rejected because they failed to meet their business objectives of Accuracy, Timeliness, Efficiency, and Flexibility. These products would require extensive modifications to include edits necessary for accurate collection of case level data and to structure an efficient workflow. They were not easily adapted to continuing changes in Federal requirements and Taskforce needs. Furthermore, the products were designed more for case intake and would not support production of standard and ad hoc reports required by the Taskforce and would require separate construction of such reports.

3.3.1.3 Dismissed Alternative 3 - In House Solution

The Taskforce considered the alternative of a web application, but developed "in house" by the CDSS ISD rather than procured from a vendor. This alternative meets the business objectives of the Taskforce and provides benefits of the proposed solution. This alternative was not considered feasible given existing constraints of the CDSS IT resources and the need to timely address problems of the current Taskforce case review system.

3.3.1.4 Dismissed Alternative 4 – Continue with Current System

The alternative of making no changes is captured in previous discussions of problems with the current system and failure of that system to meet the business objectives of Accuracy, Efficiency, Flexibility, and Timeliness. In addition to continuing current problems in each of these areas, it is projected to result in added costs in future years above any inflationary increases. Increases are projected to be incurred because the Case Review Application is an adapted tool that was not designed to support the number or complexity of decisions required on current case reviews. Continual reworking of the Case Review Application has created a structure that is difficult to amend, time and resource intense, not easily upgradeable, and increasingly brittle. Furthermore, few vendors support the software. In fact, only one vendor bid for the last maintenance

contract. Maintenance of the Case Review Application will become incrementally demanding and require increasing levels of work to modify each time.

3.3.1.5 Feasible Alternative 1 - New Web Based Application with Interfaces to Eligibility Systems (SAWS Consortia)

This alternative is a variation of the proposed solution and includes developing a new system plus implementing direct interfaces with the four SAWS Consortia eligibility systems (LEADER, CalWIN, ISAWS, and C IV). Interfaces would provide input data for the case review process, but a separate Food Stamp QC system is still required to support the case review process. The case review system included in this alternative is the same web based application described in the proposed solution. In addition to developing the web application, this alternative includes paying four SAWS Consortia projects to develop interfaces to extract sample data for importing into the Taskforce System. These interfaces would replace current interfaces with MEDS and County Payroll Systems. The Taskforce contacted the entities responsible for the four SAWS Consortia systems and received cost estimates.

3.3.1.5.1 Benefits

This alternative includes benefits of the proposed alternative and adds the following benefits not provided by the proposed alternative:

- Reduction of time spent on case reviews because more data is imported from the source system and Case Reviewers enter fewer data elements manually, since cases would be prepopulated with data.
- Reduction of errors resulting from manual data entry.

3.3.1.5.2 Advantages

This alternative is the only alternative to fully meet the CDSS business objectives and fully resolve problems identified in Section 3. Advantages that this alternative has over the proposed solution are that much of the data entry is eliminated because more data is imported via interfaces.

3.3.1.5.3 Disadvantages

This alternative has the following disadvantages:

- Significantly increased cost (over 5 times the proposed solution cost)
- Likely increase in project duration because interfaces must be developed by four entities for whom this project has not been the highest priority
- Significant increased time spent by Taskforce staff coordinating with four external entities to define requirements for the solution and test interfaces

3.3.1.6 Feasible Alternative 2 - Deploy the Current Case Review Application to a Web Server Environment

This alternative involves installing the current Case Review Application on a web platform. The current Case Review Application is a web application, capable of running on a web server that is installed on individual user workstations as described in Section 4.2.1. To make this solution operational the web platform would require a web and database server.

3.3.1.6.1 Benefits

Implementing the Case Review Application in a centralized web server environment would utilize a single centralized database and a single centralized copy of the Case Review Application. Utilizing a centralized database would eliminate several manual data transmission steps currently performed. Utilizing a centralized application would eliminate software distribution problems currently experienced.

3.3.1.6.2 Advantages

This alternative has less initial development costs and requires minimal retraining because it uses components of the current application.

3.3.1.6.3 Disadvantages

This alternative has the following disadvantages:

- Lack of accuracy and timeliness The Case Report Application is a separate, legacy application. The Case Report Application would still need to be distributed to 160 workstations to allow reporting. An additional extract program would be required to extract data from the Case Review Application, transmit it to user's workstation, and import it to the Case Report Application. Additional steps add cost and introduce likelihood of delays or inaccuracy (if the Case Report Application is used with old data).
- Lack of accuracy and timeliness Current DTVU processes are designed to run on a standalone database and do not have to consider multiple user access. This alternative involves using a single database accessed by many users at any time during the day. Therefore, DTVU's processes would have to be analyzed and modified to work in a multi user environment. Processes include:
 - DTVU still has to move data from Skeleton Files into the database
 - DTVU still has to run the Case Report Application to extract data for submission to Federal oversight agencies and to distribute data to stakeholders
- Lack of responsiveness Issues with the current system will remain and may well have a greater impact. The ability to implement and test new versions in a timely, error free manner has been an issue and will continue to be an issue.
- **Potential hidden costs** The Case Review Application is unproven as a multi user web application in California. Risks include poor performance and multi user (concurrency) issues. If the Case Review Application does not implement easily, results will be additional payment to the vendor and additional Taskforce hours fixing problems.
- Continuing risks The Taskforce will continue to be reliant on a single vendor and a few vendor staff with minimal documentation available to CDSS staff. In addition, the Case Report Application will continue in non department standard software, PC Focus.
- More expensive in the long run This alternative has lower initial costs, but is more expensive over five years.

3.3.1.7 Feasible Alternative 3 – Develop a new Web Application

This alternative was selected as the proposed solution. Costs, benefits, advantages, and disadvantages are described in section 5.1.

4.0 Project Management Plan

The Taskforce Enterprise Project will be staffed with a vendor Project Manager to oversee the software development vendor. Recommended minimum qualifications for the Project Manager are listed in the following section.

4.1 Project Manager Qualifications

4.1.1 Vendor Project Manager Qualifications

When selecting a vendor company, the following minimum requirements must be met:

- Been in existence for a minimum of five years, financially sound, and an excellent reputation for delivering projects on time and within budget
- Performed similar services, including project management and systems technology implementation, for a minimum of five years
- Able to provide references for similar work performed
- Experience in working with government enterprises
- Experience with large scale technology projects
- Experience in assessing business and technical requirements
- Experience with developing and implementing web based applications

In addition to satisfying minimum requirements, vendor companies that meet the following requirements will be preferred:

- Experience with CalWORKs/TANF, Food Stamps, or similar programs
- Inclusion on the California CMAS or MSA schedule

The full-time vendor Project Manager will have sufficient skills and knowledge to lead the technical development team for requirements validation, design, testing, and implementation, working closely with the CDSS Project Sponsor. Specifically, the vendor Project Manager will possess the following key qualifications:

- A minimum of five years experience with project management and similar large scale system development projects including:
 - Handling of confidential data
 - Newer technologies (web based applications)
- Proficient use of various project management tools (MS Project required)
- Experience in tracking and analyzing project data
- Experience in managing a technical team on a complex systems integration project with multiple stakeholders and interfaces
- Working knowledge of PMBOK methodology
- Prefer Project Management Professional (PMP) certification from the PMI Institute or equivalent certification
- Prefer experience with CalWORKs/TANF and Food Stamps programs

4.2 Project Management Methodology

The Taskforce Enterprise Project Manager will utilize the CDSS IT methodology based on the Project Management Institute Project Management Body of Knowledge (PMBOK) to track, control and ensure compliance with CDSS software, security, and confidentiality standards and various control agency requirements.

For development of the new system, it is anticipated that the vendor will use a technology project methodology similar to PMBOK or based on industry best practices. Methodology used will be subject to approval by the CDSS.

The vendor Project Manager will be required to develop and maintain a written System Development and Project Management Plan, subject to approval by the CDSS, which addresses methodologies for:

- Project administration and management
- Roles and responsibilities
- Detailed workplan schedule (Work Breakdown Structure), listing all tasks, resource allocations, start date, duration, estimated finish date, and critical dependencies
- Software tools to be used on project
- Tracking and reporting project variances, metrics, and success criteria
- Communication, including project meetings, status reporting, and project updates
- Risk Management (should be compatible with Section 7 Risk Assessment)
- Outlines and formats of all Project Deliverables and review/approval process
- Tracking issues and resolutions, including an escalation procedure
- Change Management process
- Configuration Management
- Data Conversion and Transition strategy
- Testing Unit, System, Integration, Regression, and User Acceptance
- Training
- Implementation
- System Documentation
- System Operations and Maintenance
- Quality Assurance

4.3 Project Organization

Following is a proposed project organization chart. It will be necessary to refine the project structure once a vendor is selected and project phasing is defined. The proposed organization chart also assumes that CDSS staff representatives will work as an integrated team with vendor staff throughout the project. The current CDSS organization structure is shown in Appendix C.

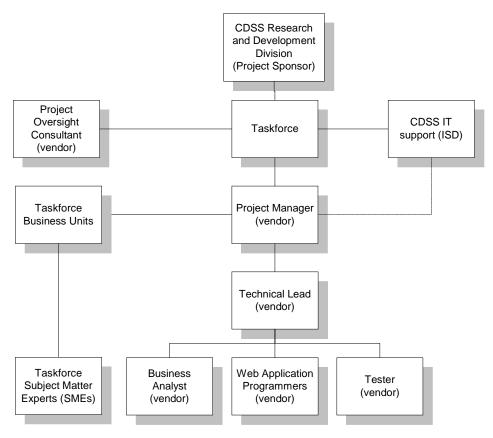


Figure 6.1 - Project Organization Chart

4.4 Project Priorities

Listed below are priorities assigned by the project's stakeholders.

Project Variable	Stakeholder Ranking
Resources	Constrained
Schedule	Improved
Scope	Accepted

Resources for the Taskforce Enterprise Project are the least flexible and most constrained. The CDSS has a limited number of business experts who can assist in requirements validation, design, and acceptance testing prior to implementation. The CDSS also has a limited number of technical resources that are knowledgeable about the existing system.

The project schedule is the least constrained factor with greatest flexibility. The project scope has limited flexibility.

4.5 Project Plan

4.5.1 Project Scope

The Taskforce Enterprise Project will consist of those tasks and activities that are required to achieve the following:

- Validate business and technical requirements
- Design software system
- Develop software system
- Perform system testing
- Convert data from the current system to the new system
- Perform system training for both users and operators/maintenance support staff
- Perform implementation rollout and production cutover

This project does not include maintenance or enhancements once the initial version is installed in production. CDSS ISD and RADD staff will be responsible for maintaining and enhancing the application.

4.5.2 Project Assumptions

Assumptions listed below were developed from an internal and external perspective in relation to time, resources, scope, financial, and miscellaneous factors.

Project Components	Description	Internal CDSS Assumptions
Time	Workplan	CDSS staff will complete assigned tasks within timeframes specified in the plan. CDSS staff will be allocated adequate time to complete all assignments.
	Deliverables and Milestones	Deliverables will be reviewed and approved by the CDSS within an acceptable, mutually agreed timeframe. Both CDSS and vendor staff will be diligent in adhering to and maintaining the project schedule.
Resources	Personnel	Adequate and appropriately skilled CDSS staff will be made available to provide business knowledge expertise to completed planned work. CDSS senior management will continually support the project from inception to completion. Changes to business processes will be communicated timely to appropriate parties within the CDSS.
	Technology	Roles and responsibilities of the technical resources will be well defined and communicated to the project team. The proposed software application will provide functionality and technical capabilities as contractually specified to meet objectives.
Financial		Appropriate funding will be apportioned to the project. There will be no changes to project funding after it is established. CDSS project management will review and refine the cost/benefit analysis at each major business decision juncture.
Scope		Both the CDSS and vendor staff will be diligent in adhering to and maintaining project scope. Any potential changes in scope will be examined and resolved without delay.
Other		Training and change management strategies will be developed to help end users adjust to the new system.
Time	Workplan	Vendor staff will complete assigned tasks within timeframes specified in the plan. Vendor staff will be allocated adequate time to complete all assignments.
Resources	Personnel	Vendor will provide adequate and appropriately skilled staff will be made to complete assigned tasks per the workplan.

Project Components	Description	Internal CDSS Assumptions
	Technology	The CDSS will provide adequate workspace and necessary technology to vendor personnel to perform their job.
Financial		Vendor staff will complete assigned tasks and meet final deliverable deadlines in accordance with the project budget and workplan. Any changes in scope or budget will be examined and resolved without delay. The CDSS will provide payment for invoiced services timely.
Scope		Changes to scope that affect the project schedule will be made in accordance to contract terms. Both the vendor and the CDSS will be diligent in adhering to and maintaining project scope.
Other		Training and change management strategies will be developed with oversight by the Project Manager.

Some constraints and respective mitigation recommendations are listed below. Additional risk factors, such as financial, project management, technology, change management, operational, contractual, vendor, and resource risks, should be identified in the Risk Management Plan that will be required of the vendor.

Constraint Description	Prevention and Mitigation
Project funding may be negatively affected by recent State budget shortfalls.	CDSS executives should be prepared to make a strong business case for anticipated benefits of the proposed solution.
The CDSS may be constrained to provide adequate resources due to State hiring freeze, competing internal projects, turnover, understaffing, etc.	CDSS management should recognize strategic and financial importance of the project, and dedicate an appropriate number of resources. If necessary, vendor staff can be employed to reduce burden on CDSS staff.
Project may be constrained by lack of organizational communication or lack of demonstrated commitment from CDSS senior management.	CDSS management should communicate their commitment throughout the organization. Executives should be kept informed of the project status and updated on potential impacts to the organization on an ongoing and frequent basis.
The CDSS may receive too few quality proposals in response to RFP's' issued.	Ensure RFP's' are written with existing and projected vendor capabilities as well as industry standards/best practices taken into consideration.

4.5.3 Project Phasing

The Research and Development Division Enterprise Project will use a project life cycle containing the following major phases. Phase deliverable dates assume a 01/01/2004 project start date.

Phases	Phase Start Date	Phase Deliverable Date	Phase Deliverables
1) Project Initiation	01/01/04	01/28/04	Project Management Plan; detailed workplan approved by the CDSS
2) Requirements Validation	01/29/04	04/21/04	Finalized Business and Technical Requirements; Requirements Traceability Matrix

Phases	Phase Start Date	Phase Deliverable Date	Phase Deliverables
3) System Design	04/22/04	07/14/04	Design Approval (Logical and Physical Design, Data Dictionary)
4) System Development	07/15/04	10/06/04	Unit Test Plans; Unit Test Results
5) Data Conversion	10/07/04	10/27/04	Conversion Plan; System test database loaded with converted data
6) System Testing	10/07/04	11/03/04	Systems Test Plans; System Test Results
7) User Acceptance Testing	11/04/04	12/01/04	Acceptance Test Plans; Acceptance Test Results
8) Training	11/04/04	11/17/04	Deliver training to users; system and user documentation
9) Implementation Planning	07/15/04	07/28/04	Approved Implementation Plan, including backup and recovery
10) Implementation and Rollout	12/02/04	12/29/04	System cut over to production
11) Post Implementation Review	03/23/05	03/23/05	PIER Report

4.5.4 Roles and Responsibilities

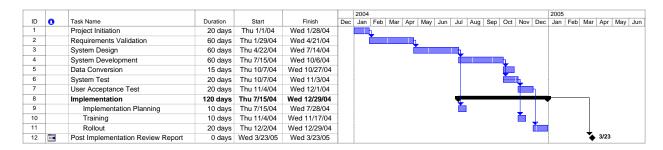
Important to success of the Taskforce Enterprise Project is partnership between CDSS staff and selected vendors. It will be necessary to refine these roles and responsibilities once a vendor is selected.

Roles	Responsibilities
CDSS Project Sponsor	Ultimately responsible for this effort through its completion
	Works directly with Project Manager on all project decisions affecting project outcome.
Project Manager (vendor)	 The program's spokesman responsible for communicating program strategy, benefits, direction, status, and recommendations to the Project Sponsor, and stakeholders Understand program business objectives and their relationship to the project Resolve phase problems and conflicts Manage all State and vendor personnel Plan the project, resource the plan, monitor and report progress versus plan to the Project Sponsor as appropriate Ensure quality control and quality assurance are performed in accordance with the quality plan Ensure all problems, issues and changes are recorded, maintained, and tracked in the program's tracking database Ensure all correspondence going from or coming into the project are
	 recorded in the program's correspondence database Maintain formal project work papers and backed up softcopies
	Provide project administration support

Roles	Responsibilities
	 Performing a risk identification to identify sources of risk, potential risk events, and risk symptoms Conducting risk quantification to determine which risks to avoid, accept, or mitigate Develop a risk response strategy that includes a risk management plan, contingency planning, and alternative strategies Manage risk response control to identify alternatives and corrective actions, and keep the risk management plan up to date
CDSS Information Services Division (ISD)	Review and provide feedback on project deliverables Held and provide feedback on project deliverables
	Help ensure project deliverables comply with CDSS standards Output Description:
Independent Oversight Consultant (vendor)	Provide an independent assessment to the project sponsor on progress of the project including a risk management database and monitoring of risks, issues and problems that may impact achievement of program and/or project objectives. Activities include: • Periodic progress reports
	 Special assessment reports on a facet(s) of the effort Establish and maintain a database to track requirements from the vendor selection process through the final delivered product
Taskforce Subject Matter	Conduct User Acceptance Testing
Experts	Implementation support
Taskforce IT Staff	Provide input for requirements validation and system design phases
	Provide technical expertise about the existing system
	Review project deliverables
Technical Lead and	Develop detailed specifications
programmers (vendor)	Business design
	User Documentation
	Develop detailed specifications
	Technical design
	Develop/customize software
	Develop system and operations documentation
	Unit and performance testing and supporting testing
	System implementation
	Perform data conversion from existing system to the new system
	Develop training plan
	Develop training curriculum
	Develop training materials and user documentation
	Conduct training
Testers (vendor)	Develop project test plan
	Develop User Acceptance Test scenarios and scripts
	Write test scripts
	Execute test scripts during integration and system testing phases
	Identify and record problems
	Perform regression testing
	Support user acceptance testing

4.5.5 Project Schedule

The project phase start and end dates are defined above in Section 6.5.3 Project Phasing and are shown in the following Gantt chart.



4.6 Project Monitoring

The CDSS IT Project Management process will be used for tracking and reporting status of project/phase deliverables, phase schedule and phase budget. It is assumed the vendor Project Manager will track and report status of all defined project activities against the Project Management Plan and will document variance of scope, schedule, and cost, as required. In addition, the vendor will provide monthly project status and Quality Assurance reports to the CDSS. The Project Oversight consultant will oversee and monitor the vendor's progress.

4.7 Project Quality

The process to be used for assuring phase results will meet business and technical objectives and requirements, as well as applicable State and/or Department standards, is defined in the CDSS IT Project Management policy. The Software Development vendor is required to implement a quality assurance process on all tasks and project deliverables to ensure they will meet stated business requirements and technology standards.

Processes will be formally documented in a Quality Management Plan that is developed and maintained by the Project Manager. The plan will include quality planning, quality assurance, and quality control activities to ensure the project is successful and requirements are met. The quality plan will address both quality of product (new software application) as well as quality of the project management and implementation services the vendor provides.

Quality of major deliverables and work products will be managed through a variety of project management activities that include:

- Adequate supervision of project activities (i.e., the vendor Project Manager will attend work sessions and meetings to periodically monitor progress and/or contribute to analysis).
- Appropriately skilled State and vendor resources will be assigned to the project.
- All deliverables will have a comprehensive quality review cycle. Deliverables will be reviewed by the Project Manager (and optionally, Project Oversight Consultant), Project Sponsor, and Subject Matter Experts from the program area and the Information Services Division as assigned.
- An open feedback mechanism will be in place to make course corrections as appropriate.

The Quality Management Plan will be reviewed and updated as necessary throughout the course of the project to reflect specific quality management activities related to application development activities.

4.8 Change Management

The Project Manager will oversee change management activities. The project team will perform change management to ensure that all proposed changes are processed according to documented procedures. Procedures will ensure that:

- The project team will review all proposed changes to identify any impact to scope, schedule, cost, and risk
- Changes are reviewed by the Change Control Board
- Approved changes are formally integrated into the project plan

- Changes causing significant deviations to project plans result in plans being re-baselined (after necessary approval has been received)
- Controlled and stable baselines are established for planning, managing, and building the new system
- Integrity of the system's configuration is controlled over time
- Status and content of the baselines are known

4.9 Authorization Required

The following table depicts special authorizations that must be obtained for the proposed solution:

Department / Agency	Approval Required
CDSS Executive Management	Feasibility Study Report, Funding, Procurement
	Method and Process
Department of Finance	State hiring freeze exemption authority
Department of Finance (TIRU, TOSU)	Feasibility Study Report, Procurement Method and
	Process
Department of General Services	Procurement Process (Information Technology
	Procurement Plan)

5.0 Risk Management Plan

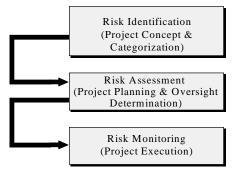
Risk Management Approach

The Project Manager will have overall responsibility for risk management. In addition, a Risk Manager will be assigned to monitor the project and coordinate with both the CDSS and vendor Project Managers. It is expected that if this project requires an independent oversight vendor, that this person will also provide insight and alternatives for managing risk, including regular reporting.

It will be the responsibility of the vendor Project Manager to develop and maintain the Risk Management Plan throughout the project lifecycle. The Risk Manager and independent oversight consultant will periodically review the Risk Management Plan, assess project risks, and make risk mitigations recommendations. The Project Manager will provide periodic status updates of risks and mitigation actions taken to the Project Sponsor and executive management as appropriate.

This process consists of three basic activities, as shown below, consistent with the DOF requirements and repeated throughout all project phases.

Figure 7.1 - Risk Management Cycle



5.1 Risk Management Worksheet

Risk Category / Event Description	Prob- ability	Trigger	Consequences (affected area/element)	Preventive/Contingency Measures
STRATEGIC				
Lack of senior management commitment to project and outcomes.	0.1	Senior management lowers project priority. Lack of attention to project. Redirection of resources.	Potential project failure due to insufficient resources or commitment.	Project manager must keep Project Sponsor and senior management informed of issues. CDSS management should communicate buy in and commitment throughout the organization. Reemphasize benefits associated with successfully completing the project.
Project goals and objectives not aligned with CDSS strategic goals	0.1	Project Sponsor recognizes lack of alignment.	CDSS and program not moving towards strategic goals.	Validate project's critical success factors with top stakeholders prior to start. Align project goals and objectives with objectives that are central to the organization.
Change in priority of project by sponsors	0.2	Discussions regarding project validity, and priority. Reduced interest by Project Sponsor.	Less resource allocation or redirection of staff. Possible project delays in implementation.	Project sponsor and executives should be kept informed of project status and updated on potential impacts to the organization on an ongoing basis. Champion benefits of the project. Revise communication plan to ensure everyone is kept apprised of project status during lifecycle.
All project stakeholders not identified	0.1	Personnel complain that they were not given an opportunity or sufficient forum for input to project.	Stakeholders may not be involved in decisions that affect them or their areas. Application does not meet expectations or business needs are not adequately defined.	Engage all appropriate personnel.
FINANCIAL				
Project funding may be negatively affected by recent State budget shortfalls.	0.7	Budgeted funds for project are less than estimated costs.	Cannot complete project due to lack of funding. Project is stopped.	Ensure funds are available. Define project and scope to appropriate level of detail. CDSS executives should be prepared to make a strong business case for anticipated benefits of the proposed solution. Meet with project stakeholders to reevaluate, validate financial components of project; apply for funding.
Project budget under estimated	0.3	Schedule not met; project costs exceed budget; schedule slips.	Budget overruns, project delays, incomplete project if scope correction is not possible.	Perform appropriate planning and ensure estimate includes all factors. Prepare detailed workplan and WBS. Request additional funding as appropriate.
PROJECT MANAGEMENT				
Scope Issues	0.3	New required tasks become apparent. Differing views among project team about outcomes. Discussion brought to table at weekly status meetings.	Newly identified tasks cause project delays or cost overruns.	Frequent, candid communication; adherence to scope; flexibility of all team members to adjustments in the project plan. Escalation to Project Sponsor.
Vendor Scope Issues	0.5	Difference in interpretation regarding scope between the CDSS and vendor.	Project delays or vendor impasse causing significant impact on cost, quality, resources, and/or time.	Include detail requirements (business and technical) in RFP. Frequent, candid communication; adherence to scope; flexibility of all team members to adjustments in the project plan. Escalation to Project Sponsor.

Risk Category / Event Description	Prob- ability	Trigger	Consequences (affected area/element)	Preventive/Contingency Measures
Inadequate workplan	0.5	Scope changes; ambiguity surrounding when and how to move the project forward; lack of established milestones.	Project delays. Potential project failure, scope, resources, and/or time issues.	Prepare detailed workplan with input from end users, technical, business, and vendor personnel. Periodically perform "reality checks". Revise workplan as needed.
Incomplete understanding of business needs and requirements	0.2	May not be noticed until after system is implemented.	Poor system performance; does not perform as expected; does not meet business needs.	Involve key personnel and business SME's to help define and validate requirements; perform appropriate preplanning and analysis. Modify requirements as needs.
Overly optimistic project schedule	0.3	Delayed tasks, missed deadlines.	Missed deadlines, project delays, possible budget overrun in order to increase resource levels.	Vendor should periodically review project schedule with the CDSS. Schedule "contingency time" as needed throughout the project. Re evaluate the schedule status at weekly team meetings and make adjustments as appropriate, keeping a baseline workplan.
Interim deliverables do not meet CDSS expectations	0.2	Iterative revision cycle for deliverables affects schedule.	Inconsistent quality and timeliness of deliverables; may not meet final expectations.	Discuss and understand the CDSS deliverable expectations. Involved Project Sponsor in setting expectations; review expectations periodically; provide additional review sessions as needed.
Lack of adequate testing	0.5	Inadequate functionality; problems/bugs affecting user productivity.	Problems/bugs discovered after system is implemented into production.	Develop comprehensive test plan that includes all types of testing; develop test scenarios and test cases with users. Plan testing with stakeholders.
Quality is compromised to achieve schedule and budget targets	9.6	Quality levels do not meet expectations.	End product is not as useful as expected. Difficult to enhance, maintain and support new application.	Develop realistic project schedule and budget slack time and contingency reserves. Assign additional resources as needed; extend schedule or budget (if possible). Rework those areas affected by compromised quality.
TECHNOLOGY				
CDSS security policies and IT standards not followed	0.2	Noncompliance is detected in the course of regular monitoring of the new application. Some breaches may be discovered late or not at all.	Loss or corruption of data; unauthorized access to system; confidentiality compromised.	Include security requirements in RFP. Ensure vendor follows CDSS security policy and IT standards. Solicit review of planned system design and architecture by appropriate IT staff. Fix the results of any breach. Ensure steps are taken to prevent reoccurrence.
Software/system incompatible with current environment – Inappropriate technology deployed.	0.2	System does not run correctly on Agency workstations.	End product does not meet expectations; system is difficult to support. Additional development work required. Cannot successfully implement new application; time lost and possible budget overrun to upgrade to workable technology.	Perform adequate planning. Understand technical and business objectives, standards, and protocols. Communicate documented standards to vendor (incorporate system architecture details and technical requirements in RFP).
Microsoft Operating Systems software patches may render the application unusable	8.	System does not run correctly.	Case Review timelines may be missed.	Install and test all Microsoft Operating System patches on test servers before installing on production servers.

CHANGE MANAGEMENT / OPERATIONAL				
Organizational resistance to change.	0.1	End users resistant to change; slow acceptance of new process and system.	Unwillingness to adapt; possibly uncooperativeness and/or low employee morale. Project delays could result if resistance occurs before implementation date.	Follow a formal change model to plan implementation of individual and organizational change. Identify all impacted. Require senior leadership to champion necessary change. Implement methodology that influences attitude, motivation, and commitment to change behavior. Develop or use project tools that will facilitate needed changes. Work closely with program areas and frequently communicate with all management. Proactively solicit support of change management initiative.
System operating procedures not clearly defined	0.5	Operating procedures are not being uniformly followed, resulting in confusion and varied outcomes to similar tasks.	Lack of procedural standardization among staff, resulting in differing outcomes to similar tasks.	Define and document detailed systems operating procedures for the new application. Require this deliverable in RFP as part of vendor contract. Gather feedback at regular status meetings. Revise and clarify system operating procedures.
Program areas or business units affected by new system implementation are unclear of change.	0.5	Business units unclear about project, roles, or goals.	Increased complexity of coordination.	Develop stakeholder plan, requesting input from all identified stakeholders. Disseminate project information by implementing strategies outline in the Communication Plan (or section of the Project Management Plan).
Users of new system are overwhelmed by magnitude of change.	0.1	Frustration expressed by end users and poor acceptance of new system.	Decrease in initial productivity due to learning curve, possible resistance to change, poor morale.	Proactively communicate benefits of new application. Involve affected staff in system and/or application design sessions. Provide adequate training for all staff. Implement enterprise wide communication plan early in project.
CONTRACTUAL				
Contractual disagreement	0.5	Difference of interpretation regarding contract terms and expectations between the CDSS and vendor. Discussion brought to attention of Project Manager.	Potential project delays; scope, time, and/or cost changes. Possible litigation in extreme cases.	Frequent, candid communication. Adherence to project scope. Disputes to be resolved per contract terms.
VENDOR				
Vendor does not perform as expected or deliver contracted products.	0.3	Application lacks desired functionality. End users unsatisfied with implemented system.	Quality or functionality of applications may be inadequate. Project delays, potential project failure.	Perform appropriate due diligence. Scrutinize evaluation criteria and vendor selection methodology. Ensure contract has performance clauses. Withhold percentage of deliverable payments until project is completed.
RESOURCES				
Under estimation of resources needed to complete project. The CDSS may be constrained to provide adequate resources due to State hiring freeze, competing internal projects, turnover, understaffing, etc	0.3	Timeline slips and must be extended; deliverables are delayed.	Possible project delays, missed deadlines, overworked and over allocated resources	Prepare detailed workplan, including allocation of cost/time/resources with input from vendor and CDSS staff. Factor in some allocation of time contingent on "what if" scenarios". Request and defend need for extra funding. CDSS management should recognize the strategic importance of the project and dedicate an appropriate number of resources.

Inadequately defined roles and responsibilities.	0.1	Confusion and ambiguity resulting in incomplete tasks, multiple persons responsible for same task; no one responsible for task.	Critical tasks not completed. Project delays, confusion, and/or overlap regarding ownership of specific project roles and responsibilities.	Define and communicate roles and responsibilities before project inception and frequently validate throughout the project. Ensure project team understands roles and responsibilities.
Insufficient resources to support new application.	0.3	Help requests not addressed timely; upgrades (if applicable) not implemented as recommended by vendor.	Reliability/availability is compromised. Resource overloads resulting in poor system performance and maintenance.	Obtain commitment within the CDSS to acquire or assign appropriate support.
Lack of adequate user training on new systems and business process.	0.1	Significant rework is noticed; frustrated end users revert to manual processes.	Project does not progress adequately. Testing and implementation schedules are pushed back; deadlines are not met.	Plan for and schedule training as early as possible; schedule staff to be trained as early as possible. Work with the CDSS management on training program; extend schedule if necessary to allow for sufficient training.
Resources lack appropriate skill sets to address responsibilities assigned.	0.1	Significant rework is noticed. Schedule is not met. Quality of deliverables does not meet expectations.	Project does not progress satisfactorily. Required increase in resources/budget. Timeliness issues, delays in completing tasks.	Recruit and employ experienced personnel. Recruit and provide replacement staff if skill sets do not match requirements for job completion.
LEGISLATIVE/ INDUSTRY				
New legislation is passed that must be incorporated into new system.	8.0	Legislation enacted that impacts program areas.	Dependent on impacts if new system is not compliant. Possible schedule and budget impacts.	Maintain awareness of legislation possibly affecting program area and new system. Some contingency reserves (slack time) in workplan may cover work required.

5.1.1 Risk Assessment

Risk categories documented for inclusion to this plan are:

- **Strategic** Risks associated with the degree to which the project is in alignment with the CDSS and State business strategies, objectives, and technological direction.
- **Financial** Risks associated with the probability that the CDSS will be able to secure funds necessary to implement the proposed solution.
- **Project Management** Risks that might potentially affect project management include project schedule timeframes, resources, and appropriate skill levels of needed resources, communication issues, and an effective project management approach.
- **Technology** Risks associated with the degree to which the project must rely on new hardware, software, middleware, and networks to develop and implement the new application.
- Change Management/Operational Risks associated with the degree of organizational change to the CDSS as well as the effort required to operate the new application within the current environment.
- **Contractual** Risks associated with the inability of the CDSS or third party vendors to comply with contractual requirements outlined in applicable contractual agreements.
- **Vendor** Risks associated with vendor qualifications, selection, reputation, financial stability, and/or performance.
- **Resources** Risks associated with the ability to acquire, retain, and fill project team positions with qualified and knowledgeable personnel.
- **Legislative/Industry** Risks associated with changing mandates in the social services field, complying with legislative rules and regulations, and the potentially changing status and relationship of the CDSS with its primary data exchange partners (other State, Federal, and County agencies).

As new risks are identified, appropriate response actions will be developed and the Risk Management database will be updated as needed.

5.1.2 Risk Identification

The list of initial risks in section 7.1 were identified as likely to have the greatest effect on the project. The list will be further developed when the project is initiated and the vendor, project stakeholders, project sponsor, project manager, and others develop the complete Risk Management Plan, further populating this initial worksheet. Risk identification will be an on going process.

5.1.3 Risk Analysis and Quantification

Risk quantification involves evaluating risks, as well as risk interactions, to assess the range of possible impacts on the project. It focuses on determining which risk events warrant a response. Each risk will be classified and prioritized using a scale of high, medium, or low indicating probability of occurrence. The Project Manager and Project Sponsor will jointly decide at what level of risk they will manage. For example, they may agree to immediately respond to risks that have a high probability of occurring. Each risk will also have an impact rating (high, medium, and low) as well as a designation of the aspect of the project it affects.

5.1.4 Risk Prioritization

As part of the risk analysis and quantification, each risk will be classified and prioritized using a scale of high, medium, or low indicating probability of occurrence.

5.1.5 Risk Response

Risk response defines the project team's response to threats and determines how to respond to a recognized risk at a level that merits response. The Project Manager will propose the risk response to the Project Sponsor. This response can consist of one of four approaches listed below.

5.1.6 Risk Avoidance

<u>First Approach.</u> The project team can control this risk. The team cannot eliminate all risk, but specific risk events can often be eliminated.

5.1.7 Risk Acceptance

<u>Second Approach.</u> The project team has no control over this risk and therefore accepts the consequences. However, the team proactively develops and uses the contingency plan should the risk occur.

5.1.8 Risk Mitigation

<u>Third Approach.</u> The project team can control mitigation. Mitigation reduces the expected monetary value of a risk by reducing the probability of occurrence. An example is using a proven technology to lessen the probability that the product will not work.

5.1.9 Risk Sharing

<u>Fourth Approach</u>. This involves shifting some potential activities of risk to the vendor while accepting the remainder. Deliverables of the risk management activities are the Risk Management Plan, risk contingency plan and risk reserve.

5.1.10 Risk Contingency Plan

This plan is part of the Risk Management Plan and is maintained by the vendor Project Manager. It predefines action steps to be taken if an identified risk event should occur.

5.2 Risk Tracking and Control

5.2.1 Risk Tracking

To prevent failure on the project, the Project Manager and Project Sponsor will monitor risk throughout the project. If required, an oversight consultant will assist in monitoring the project for risks. Tools used to monitor risk include project management software (MS Project) to identify potentially impacted project activities situated on the critical path, a Risk Management Plan, risk management worksheets, and a database repository of risks maintained by the vendor Project Manager or designee. Information that will be tracked in this database include:

- Significant risk events (top ten)
- Number of risk items resolved to date
- Number of new risks since the last report
- Number of unresolved risk items
- Unresolved risk items on the critical path

Project risks will be reviewed and discussed at a weekly project management meeting. The CDSS will have final approval.

5.2.2 Risk Control

Risk control involves executing the Risk Management Plan to respond to risk events throughout duration of the project. As changes occur, identification, quantification, and response are repeated. The vendor Project Manager and Project Sponsor (with oversight by the project oversight consultant) control risks. Risk control techniques include:

Corrective Action. This action uses the risk management plan as a guide to performing the planned risk response.

Risk Management Plan Updates. As the project changes, anticipated risks occur or fail to occur. As risk event effects are evaluated, the Risk Management Plan will be updated.

Appendix A Glossary of Terms and Acronyms

Term	Definition
ACF	Department of Health and Human Services, Administration for Children and
	Families
AFDC	Aid to Families with Dependent Children
AGPA	Associate Governmental Program Analyst
AISA	Associate Information Systems Analyst
Batch Program	Program used to edit the consolidated case file at the Taskforce level prior to
	submission to Federal oversight agencies.
CalWORKs	California Work Opportunity and Responsibility for Kids
Case Review Application	Database containing all case data for TANF and Food Stamps reviews. This
Tr -	data is initially loaded from sample files (skeleton files).
CDSS	California Department of Social Services
DTVU	Data Transmission and Validation Unit (DTVU) within the Taskforce
FNS	Oversight agency for the Food Stamp program is the Department of
	Agriculture, Food and Nutrition Services
FOB	Field Operations Bureau
Food Stamp Negative	Households denied, suspended or terminated from the Food Stamp Program
"ISB" file	Characteristic data file used by the CDSS Trend Analysis Unit
ISD	Information Systems Division
MEDS	MediCal Eligibility Data System
MOE	Maintenance of Effort
Negative Food Stamp QC	Case level review to determine appropriateness of the determination to deny,
	suspend, or terminate Food Stamp benefits
PIER	Post Implementation Evaluation Report
RA I	Research Analyst
RPS I & II	Research Program Specialist
PMC	Case Review Agencies are operated in eighteen Performance Measurement
	Counties (PMC) and by the State of California, Department of Social Services,
	Field Operations Bureau (FOB) for Los Angeles County and the remaining
	thirty-nine smallest counties
PWS	Personal Web Server
QC	Quality Control
Repository	Store and Forward File Repository
SAWS Consortia	Four eligibility systems: LEADER, ISAWS, C IV, and CalWIN.
Skeleton File	The file of Case Review data extracted from source system. This file contains
	a subset (hence skeleton) of data elements that must be submitted to Federal
	oversight agencies.
SMU	System Maintenance Unit (SMU) within the Taskforce
SSP-MOE	Separate State Program - Maintenance of Effort
	(TANF related program operated by State with funds claimed as State TANF
	Maintenance of Effort)
SSM I & II	Staff Services Manager
TANF	Temporary Assistance to Needy Families
TAU	Trend Analysis Unit within the Taskforce
WPR	Work Participation Rate

Appendix B Process Flows

The following section summarizes the current Taskforce Business Process Flow. Process flows describe existing processes using the existing system. Business requirements focus on essential characteristics the proposed solution must incorporate to satisfy business objectives. Current processes have recognized weaknesses, as a result, process flow steps intentionally do not have matching business requirements. For example, process flow step QC-8 involves the Taskforce running final edits, which would not be necessary if Case Review Agencies used the same centralized application as the Taskforce.

Process Flow/Category:

Process flows for the Taskforces processes are categorized by process type as follows:

- Quality Control (QC)
- Software Application Development (SAD)
- Administration and Information Management (AM)

Quality Control Process Flow:

- QC-1. Receive sample file from Trend Analysis Unit
- QC-2. Send sample cases to Case Review Agencies. Files sent include:
 - a. Food Stamp active
 - b. Food Stamp negative
 - c. TANF Active (includes two samples, (1) Federal (2) SSP)
 - d. TANF closed (includes two samples, (1) Federal (2) SSP)
 - e. Other

(All counties do not receive all samples)

- QC-3. Case Review Supervisors allocate cases to Case Reviewers
- QC-4. Case Reviewers gather and enter data
- QC-5. Case Reviewers perform and record review until all edits passed
- QC-6. Case Reviewers transfer completed cases to supervisors for review
- QC-7. Agency sends completed case reviews data back to the Taskforce
- QC-8. Taskforce runs final edits ("Batch Program")
- OC-9. Taskforce fixes errors found by "Batch Program"
- QC-10. Taskforce sends cases to Federal oversight agencies
- QC-11. Errors are returned by Federal oversight agencies (C Trail and Logical edits)
- QC-12. Taskforce fixes errors and resubmits data to Federal oversight agencies
- QC-13.DTVU sends "ISB" file to Trend Analysis Unit
- QC-14.Run "Rolling Error Rate" for Food Stamp Program
- QC-15.Send Data Transmission File to Trend Analysis Unit
- QC-16.TANF "unwed information" sent to Data Systems and Design Bureau
- QC-17.TANF "active case information" on non drops sent to Research Unit

Software Application Development (SAD) and Rollout Process Flow:

SAD-1. Taskforce identifies new sources of errors or receives new regulations or guidance from Federal oversight agencies

- SAD-2. Taskforce staff analyze error/regulation/guidance SAD-3. Taskforce defines application modifications, including new edits for inclusion in
- Case Review Application
 SAD-4. Vendor makes application code changes to develop new application
- SAD-5. Taskforce tests application
- SAD-6. Taskforce prepares training material and trains Agency staff
- SAD-7. Taskforce distributes application to Case Review Agencies
- SAD-8. Case Review Agencies install and implement new application version

Administration and Information Management (AM) Process Flow:

- AM-1. Identify timeframes and accuracy goals
- AM-2. Manage the process to timeframes and accuracy goals
- AM-3. Track and adjust to exceptions
- AM-4. Report production (Produce standard reports, receive and process requests for ad hoc reports and publications)
- AM-5. Identify new uses for collected information

Appendix C Current CDSS Organizational Structure

Appendix E End Notes

ⁱ DFA 256 Reports for State Fiscal Year (SFY) 2001-02 – Monthly average Food Stamp benefits issued in SFY 2001-02 as published by the DFA 256 Reports.

ⁱⁱ DFA 256 Reports for SFY 2001-02 – Average monthly eligible household for SFY 2001-02 as published by the DFA 256 Reports.

ⁱⁱⁱ The Governor's Budget for SFY 2003-04 projects CalWORKs costs for SFY of 2002-03 which include expenditures for CalWORKs assistance payments, CalWORKs Services expenditures, CalWORKs administration, CalWORKs Child Care, CYSA County Probation Facilities and Kin-GAP program.

^{iv} Governor's Budget for SFY 2003-04 projects a CalWORKs caseload of 513,162 for SFY 2002-03 that includes the child only, all other families, and separate state 2 parent caseloads.

v 45 CFR Part 261.5

vi 45 CFR Part 263.1

vii 45 CFT Part 265.8

viii 7 CFR Part 275.21

^{ix} Fiscal Effect on California: Congressional Welfare Reform Reauthorization Proposals, Figure 7, Houses TANF Reauthorization Proposal

^x DFA 256 Reports for SFY 2001-02 – Food Stamp benefits issued in SFY 2001-02.

xi DFA 256 Reports for SFY 2001-02 – Average monthly eligible households for SFY 2001-02.

xii The Governor's Budget for SFY 2003-04 projects CalWORKs costs for SFY 2002-03 of \$6 billion which includes expenditures for CalWORKs assistance payments, CalWORKs Services expenditures, CalWORKs administration, CalWORKs Child Care, CYSA County Probation Facilities and Kin-GAP program.

xiii DFA 256 Reports for SFY2001-02 – The average monthly Food Stamps expenditures for SFY 2001-02 were \$141,426,159.

xiv Data reported by the counties directly to the CalWORKs and Food Stamp Data Systems Design Taskforce. Data are derived from County payroll files and may not coincide with data from the DFA 296 report.

^{xv} The Governor's Budget for SFY 2003-04 projects the CalWORKs 2 parent caseload for SFY 2002-03 to be 49,217 per month for SFY 2002-03.

xvi The Governor's Budget for SFY 2003-04 projects the CalWORKs All Families caseload for SFY 2002-03 to be 463,946 per month for SFY 2002-03.

xvii 45 CFR Part 263.1

xviii 45 CFT Part 265.8

xix 45 CFR Part 263.1

xx 45 CFT Part 265.8

xxi 7 CFR Part 275.21